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Rowan University In Brief

**Type**
Comprehensive, coeducational, non-sectarian, state-supported, public research university, opened in 1923

**Colleges**
Business, Communication & Creative Arts, Education, Engineering, Graduate & Continuing Education, Humanities & Social Sciences, Performing Arts, and Science & Mathematics. Schools: Cooper Medical School of Rowan University, Graduate School of Biomedical Sciences, School of Biomedical Science and Health Professions, and School of Osteopathic Medicine.

**Degrees**
Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science in Nursing, Master of Arts, Master of Business Administration, Master of Education, Master of Engineering Management, Master of Music, Master of Science, Master of Science in Nursing, Master of Science in Teaching, Educational Specialist, Doctor of Education, Doctor of Medicine, Doctor of Osteopathic Medicine and Doctor of Philosophy

**Campuses**
Main Campus – Glassboro, N.J. (approximately 20 miles southeast of Philadelphia, Pa.); Branch Campuses – Camden, Mullica Hill, and Stratford, N.J.

**Size**
Approximately 10,495 undergraduate students and 1,585 graduate students on the main campus in Glassboro and branch campuses; approximately 621 graduate students at the School of Osteopathic Medicine and 153 students at the Graduate School of Biomedical Sciences on the branch campus in Stratford; approximately 663 full-time equivalent (FTE) faculty.

**Average Costs (2014-2015)**

<table>
<thead>
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<th>Tuition &amp; Fees</th>
<th>Room &amp; Board*</th>
<th>Total</th>
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<tr>
<td><strong>In State</strong></td>
<td>$12,616</td>
<td>$11,126</td>
<td>$23,742</td>
</tr>
<tr>
<td><strong>Out of State</strong></td>
<td>$20,570</td>
<td>$11,126</td>
<td>$31,696</td>
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Tuition and fees for the College of Graduate & Continuing Education (CGCE) vary with the nature of the program, location, and mode of delivery. CGCE costs can be found at either of these websites: [www.rowan.edu/bursar](http://www.rowan.edu/bursar) or [www.rowan.edu/cgce/tuition](http://www.rowan.edu/cgce/tuition)

* For accommodations in a residence hall (double) and including the all-access meal plan with $200 Dining Dollars and $200 ’Boro Bucks

From Normal to Extraordinary: A History of Rowan University

Rowan University has evolved from its humble beginning in 1923 as a normal school, with a mission to train teachers for South Jersey classrooms, to a comprehensive public research university with a strong regional reputation.

In the early 1900s, many New Jersey teachers lacked proper training because of a shortage of schools in the state that provided such an education. To address the problem in South Jersey, the state decided to build a two-year training school for teachers, known then as a normal school.

The town of Glassboro was an early favorite because of its excellent rail system, harmonious blend of industry and agriculture, natural beauty and location in the heart of South Jersey. Several towns in the region competed to be the site of the new normal school because of the economic benefit and prestige such an institution would bring.

In 1917, to sway the decision in their favor, 107 residents of Glassboro raised more than $7,000 to purchase 25 acres, which they offered to the state for free if the borough were selected as the site. The land tract included the Whitney mansion (now known as Hollybush) and carriage house. Before the purchase, the entire property belonged to the Whitney family, prominent owners of the Whitney Glass Works during the 1800s. This show of support, along with the site’s natural beauty, convinced the selection committee that Glassboro was the perfect location.

**A Strong Foundation**

In September 1923, Glassboro Normal School opened with 236 students arriving by train to convene in the school’s first building, now called Bunce Hall. Dr. Jerohn Savitz, the institution’s first president, expanded the curriculum as the training of teachers became more sophisticated.

Despite the rigors of the Depression, the program was expanded to four years in 1934, and in 1937 the school changed its name to New Jersey State Teachers College at Glassboro. The college gained a national reputation as a leader in the field of reading education and physical therapy when it opened a clinic for children with reading disabilities in 1935 and added physical therapy for the handicapped in 1944. The college was one of the first in the country to recognize these needs and
was in the forefront of the special education movement.

Rowan's second president, Dr. Edgar Bunce, created a junior college program in 1946 to serve World War II veterans taking advantage of the GI Bill.

In the 1950s, Dr. Thomas Robinson, the University's third president, expanded the curriculum, increased enrollment and added several buildings to the campus. In 1958, the school's name was changed to Glassboro State College to better reflect its mission.

**A Historic Summit**

The University received worldwide attention when it hosted a historic summit conference between President Lyndon Johnson and Soviet Premier Aleksei Kosygin in Hollybush. The University was chosen because of its strategic location midway between Washington, D.C., and the United Nations building in New York City, where Kosygin was scheduled to speak. The meetings between the two leaders, held June 23-25, 1967, led to a thaw in the Cold War and eased world tensions.

**Rapid Growth to Serve Needs**

The University's fourth president, Dr. Mark Chamberlain, guided the college through its next phase of growth as enrollment doubled and the college became a multi-purpose institution. As new majors and a Business Administration Division were added, the four divisions grew into schools and a board of trustees was formed. In 1969, the University opened a campus in Camden to expand its educational services. With a 1978 Division III National Championship in baseball, the first of 11 national championships for the institution, the athletic program established itself as one of the premier athletic programs in the country.

The college's fifth president, Dr. Herman James, assumed the leadership of the institution in 1984. Under his direction, Rowan expanded by establishing the first doctoral program among the state's public institutions and adding the Colleges of Engineering and Communication. Dr. James also was responsible for the construction of Campbell Library, the Student Recreation Center and Rowan Hall.

**A Transformative Gift**

In July 1992, industrialist Henry Rowan and his wife, Betty, donated $100 million to the institution, then the largest gift ever given to a public college or university in the history of higher education. Later that year, the school changed its name to Rowan College of New Jersey to recognize its benefactors' generosity. The Rowans' only request was that a College of Engineering be created with a curriculum that would address the shortcomings of engineering education at that time.

The college achieved University status in 1997 and changed its name to Rowan University under Dr. James' leadership. The College of Engineering quickly earned national accolades for its successful new curriculum.

Dr. Donald J. Farish was appointed as the sixth president in July 1998. Under his leadership, the University implemented an aggressive improvement plan that addressed academic and student support initiatives as well as campus construction and renovation projects.

Major construction projects included the University townhouses; Science Hall; Education Hall; and the Samuel H. Jones Innovation Center, the first building of the South Jersey Technology Park at Rowan University.

During his tenure, the University also entered into a public-private partnership that led to the construction of Rowan Boulevard, a $300 million, mixed-use redevelopment project that links the campus with Glassboro's historic downtown. The corridor is home to more than 1,300 students and a Barnes & Noble collegiate superstore.

**A Broader Mission**

During this period, Cooper Medical School of Rowan University—the first new medical school in New Jersey in more than 35 years and the first-ever M.D.-granting four-year program in South Jersey—was developed in partnership with Cooper University Health Care.

The medical school welcomed its first class in the summer of 2012 into a new, six-story building adjacent to Cooper University Hospital in Camden. Close to 3,000 students applied for 50 spots in the medical school's charter class.

The Board of Trustees named then-Provost Dr. Ali Houshmand as interim president in July 2011 and then the University's seventh president in June of 2012.

As provost, he established the College of Graduate and Continuing Education and started Rowan’s online education program. As president, he dramatically reduced institutional expenses and increased revenue while expanding enrollment and academic programs.

In 2012, several of the colleges were restructured and schools were created—Colleges of Business, Communication & Creative Arts, Education, Engineering, Humanities & Social Sciences, Performing Arts, Science & Mathematics and the School of Biomedical Sciences and Cooper Medical School of Rowan University.

**N.J. Medical & Health Sciences Education Restructuring Act**

On July 1, 2013, Rowan again changed dramatically when the New Jersey Medical and Health Sciences Education Restructuring Act went into effect. The Restructuring Act designated Rowan as the New Jersey's second comprehensive public research institution, transferred the University of Medicine and Dentistry of New Jersey's School of Osteopathic Medicine to Rowan and partnered Rowan with Rutgers-Camden to create graduate programs in Life Sciences in the City of Camden.
Rowan became the second institution in the nation to have both a D.O.-granting medical school (RowanSOM) and an M.D.-granting medical school (Cooper Medical School of Rowan University). The transfer of programs also led to the creation of the Graduate School of Biomedical Sciences and gave Rowan its third campus—Glassboro, Camden and Stratford, N.J.

**Recognized Nationally**
Rowan has attracted the attention of national organizations that evaluate colleges and universities. U.S. News & World Report ranks Rowan University 18th of Northern Regional Universities and third among the public institutions in the category. The College of Engineering is ranked 32nd nationally among master’s level programs and the Chemical Engineering program is ranked third.

The Princeton Review included Rowan in its latest edition “The Best Northeastern Colleges” and included the Rohrer College of Business in its edition of the “Best 296 Business Schools” from among more than 1,800 business schools.

The University has received 13 awards for green initiatives since 2007. Most recently, the U.S. EPA named the University a “Top Green Power Purchaser” in its athletic conference and The Princeton Review listed it in its “Guide to 322 Green Colleges.”

**Numerous Opportunities**
Today, Rowan’s nearly 14,000 students can select from 57 bachelor’s, 46 master’s, and four doctoral degree programs in colleges and schools across four campuses.

From the modest normal school begun 90 years ago, Rowan University has become an extraordinary comprehensive institution that has improved the quality of life for the citizens of New Jersey and the surrounding states.

**Using This Catalog**
Rowan University has multiple catalogs:

- The Undergraduate Catalog includes the program requirements and course descriptions for all traditional-format undergraduate programs (courses offered on-campus and across 16-weeks each term).
- The Graduate & Continuing Education (CGCE) Catalog includes the program requirements and course descriptions for all traditional-format post-baccalaureate and graduate programs (courses offered on-campus and across 16-weeks each term) as well as all of Rowan’s non-traditional-format programs (courses offered online, off-site, hybrid, and/or accelerated each term) at every level (undergraduate, post-bac, and graduate - including doctoral).
- The Cooper Medical School of Rowan University (CMSRU) Catalog describes the curriculum and policies for the Doctor of Medicine (MD) program.
- The Rowan University School of Osteopathic Medicine Catalog describes the curriculum and policies for the Doctor of Osteopathic Medicine (DO) program.
- The Graduate School of Biomedical Sciences (GSBS) Catalog describes the curriculum and policies for the academic programs offered by GSBS.

**Academic Calendar 2014-2015**

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<td>Semester Classes Begin</td>
<td>Monday, October 20</td>
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<td>1st Quarter Concludes</td>
<td>Tuesday, November 4</td>
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<td>Election Day (no classes)</td>
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<td>Thanksgiving Recess (no classes)</td>
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<td>2nd Quarter Concludes</td>
<td>Friday-Thursday, December 12-18</td>
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<td>Finals Week</td>
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<td>Semester Concludes</td>
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<td>Spring Semester Begins</td>
<td>Monday, March 9</td>
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<td>3rd Quarter Concludes</td>
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<td>Spring Break (No Classes)</td>
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<td>Monday, May 4</td>
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<td>4th Quarter Concludes</td>
<td>Tuesday-Monday, May 5-11</td>
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<td>Monday, May 11</td>
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<td>Semester Concludes</td>
<td>Tuesday- Friday, May 12-15</td>
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<td>Commencement Week</td>
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Summer Sessions 2015
Memorial Day (no Classes)        Monday, May 25
Fourth of July (no Classes)     Friday, July 3
Summer Sessions are Subject to Change

NOTE:
The Rowan University-wide Academic Calendar shows the official calendar for Rowan holidays, breaks, and the start and end dates of the traditional semesters. CGCE students or any other Rowan students in Summer courses, online, off-site, hybrid and/or accelerated courses and programs may follow different calendars. Basic CGCE Extension calendar types are available to view at: www.rowan.edu/cgce/schedules
However, the best way to be certain of the start and end dates for your CGCE non-traditional course is to consult Rowan's Section Tally at: http://banner.rowan.edu/reports/reports.pl?task=Section_Tally

Office of the President
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Robert Zazzali
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Joanne Connor
Executive Assistant to the President/Board of Trustees Liaison
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connorj@rowan.edu

The President works with the Board of Trustees and the Executive Cabinet to determine the vision and strategy for the University. The President's Office is comprised of the Executive Vice President for Administration and Strategic Advancement, the Executive Assistant to the President/Board of Trustees Liaison, and the President's Chief of Staff.

Division of Academic Affairs
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Senior Vice President and Provost
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Roberta Harvey
Vice President for Academic Affairs
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Darren Nicholson
Provost Fellow
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Rowan University is an institution of higher learning in which priority is given to the intellectual development of its students. Intellectual development is held to be important for its own sake, essential as part of preparation for future careers and significant for the personal growth of students. Further, the University is committed to an academic tradition that encourages research and provides public service as a function of its social responsibility.
All academic programs offered at Rowan University have broad perspectives affecting the mind, body and spirit of its students. Intellectual pursuits often are matched by experiential enrichment field experience, work study and personal involvement. Students at Rowan University are expected to master bodies of knowledge. This mastery is typically accomplished by means of subject-matter specialization in combination with a required general education program strongly based in the liberal arts and sciences.

Academic excellence is core to all programs at Rowan University. Our faculty has the requisite expertise to assure the currency and high quality of the curriculum. The academic administrators and professional staff are selected according to their experience and expertise in curriculum, policy, and leadership. Support staff is essential to a well-functioning division that aims to promote student learning. Academic programs at Rowan University are reviewed, enhanced and/or modified regularly by the faculty to assure excellence and currency. Student learning outcomes assessment provide information to make changes where needed in the curriculum or to assure the excellence of programs. We seek accreditation or external review for academic programs to demonstrate quality.

The academic program is divided into three main offerings: those courses which constitute the major program of study, general education courses which assure breadth and depth of the liberally educated mind, and free electives which provide students opportunities to explore various intellectual areas of curiosity.

The Academic Affairs Division is headed by the Provost or Chief Academic Officer. The Provost is responsible for leadership and oversight of academic programs, faculty affairs, library services, and Rowan University at Camden. The Deans of the Colleges of Business, Communication & Creative Arts, Education, Engineering, Performing Arts, Humanities & Social Sciences, Science & Mathematics, and Graduate & Continuing Education report to the Provost. The associate provosts for Academic Affairs, Research, and Library Information Services also report to the Provost. The Provost reports directly to the President and is second in the chain of command at the University.

**Registrar**

Muriel Frierson  
Savitz Hall  
856.256.4367  
frierson@rowan.edu

The Office of the Registrar oversees registration, transcripts and diplomas, graduation, and other matters involving student records, as well as classroom scheduling and maintenance of the curriculum. The Registrar also coordinates compliance with the Statewide Transfer Agreement and provides resources for transfer students. A variety of services and reports are also made available to other divisions, units, and departments. The Registrar works closely with the Division of Strategic Enrollment Management, including the Offices of Admissions and Student Retention, and directly supports the Office of Academic Affairs.

**Rowan University Libraries**

Scott Muir  
Associate Provost  
Keith and Shirley Campbell Library  
856.256.4800  
muir@rowan.edu

Rowan University Libraries supports the University's educational and research mission through the judicious selection, management, promotion, and training in the use of information resources and services. Rowan University Libraries provides the Rowan community with access to an extensive range of resources and services, which are accessible through four physical libraries and through the Library website. Reference librarians are available in all libraries for research consultation and to assist patrons in identifying, locating, accessing, and evaluating both print and online resources.

**Keith and Shirley Campbell Library**

The Keith and Shirley Campbell Library is the main library on the Glassboro campus. Opened in 1995, the 118,000 sq. ft. facility, houses nearly 400,000 books, multimedia materials, periodicals, newspapers, and special collections in a variety of formats. Campbell Library provides orientations, tours, and workshops throughout the academic year. A 30-workstation lab is available for student use, as well as library instruction. Group study rooms are available for use by students. Campbell Library also houses a the Digital Learning Center, a collaborative environment to support Rowan community members in the exploration of emerging digital technologies. Students, faculty, and staff can experiment with updated equipment and specialized software related to video editing, image editing, and research poster design. They can access technology resources available through the Rowan Cloud and brainstorm projects with trained library staff. And, they can engage in self-paced technology discovery.

Through a collaborative effort of Library and IT Services, laptops may be checked out at the Campbell Circulation Desk for use by the current Rowan University community.
The CMSRU Library
The CMSRU Library serves the faculty, staff, and students of CMSRU; Cooper University Health Care; and members of the Rowan University community. The Library houses a small collection of print books and journals in the clinical and basic sciences. The bulk of the collection is comprised of books, journals, databases, and related specialty collections. These are linked via the library website and are available to users 24/7. The Library has a combined seating capacity of 198 with seven group study rooms, 41 public workstations, and two computer labs.

The Rowan SOM Health Sciences Library
The Health Sciences Library is located in the Academic Center. It serves all students, faculty, and staff on the Stratford Campus, as well as members of the Rowan University community. The Library houses an extensive collection of print books and journals in the clinical and basic sciences. In addition, a collection of electronic journals, electronic books, and a wide variety of image databases and collections are available through the Library's web page. The Library has a seating capacity of 224, which includes study carrels and tables, study rooms, and computer workspaces.

Government Documents
Rowan University participates in the U.S. Federal Documents Depository program and maintains a selective depository, located on the second floor of Campbell Library. Rowan University Libraries collects paper and virtual materials at the city, state, and international government level as well as those of non-governmental organizations; and provides research assistance and help in obtaining desired documents.

Archives and Special Collections
University Archives and Special Collections are housed in the Stewart Room, located in the Campbell Library. Named in memory of Frank H. Stewart, a prominent New Jersey industrialist who donated an extensive and valuable collection of New Jersey historical documents and artifacts, the Stewart Room collection has grown to include a wide range of important source materials beginning with the Colonial and Revolutionary eras. Researchers and scholars from across the nation use these important collections. The University Archives include items from the historic summit in 1967 between President Lyndon Johnson and Soviet Premier Aleksei Kosygin, which took place at the Hollybush mansion on campus.

The Music Library at Wilson Hall
Located in Wilson Hall, the home of the Music and Performing Arts Department, the Music Library maintains unique collections and offers specialized information services and instruction for students and faculty. The Music Library houses significant collections of scores, CDs, and recordings. In addition, electronic access to the Naxos Music Library, Grove Music Online, and Music American, among others, is available through the Rowan University Libraries website. Listening equipment and specialized labs are also available in the Music Library.

Virtual Library Services
Rowan University Libraries subscribes to more than 55,000 online journals and thousands of other e-resources that are available 24/7 through the Library website. Librarians are available for extended hours using "Ask a Librarian" services.

Faculty Center for Excellence in Teaching and Learning
Deb Martin
Director
James Hall
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martind@rowan.edu

The Faculty Center for Excellence in Teaching and Learning serves individuals, groups, and the institution in pursuit of teaching excellence. Its three areas of activity are; 1) induction and ongoing support of junior faculty; 2) professional development focused on the scholarship of teaching, learner-centered teaching, action-research, and reflective pedagogy; and 3) institutional change relevant to teaching and learning. The Center encourages self-directed inquiry through workshops, discussion groups, learning communities, and conference participation.

Division of Finance
Joseph F. Scully
Senior Vice President and Chief Financial Officer
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The Division of Finance provides effective administrative and financial services for efficient University operations and provides support services for the proper utilization of resources to ensure the campus environment is one that is conducive to learning. The Division manages the planning, programming, design and implementation of new construction and renovation projects in support of the campus master plan; administers proper operational services for a well-maintained physical plant and provides for a safe and secure campus for the University community.
Division of Government Relations

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Melissa Wheatcroft
Associate General Counsel
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Division of Facilities and Operations

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Joseph Monahan
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Jeremy Sunkett
Director
Business Operations & Capital Controls
856.256.4249
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The Division of Facilities Planning and Operations supports the university's mission of providing a collaborative, learning-centered environment through its caring stewardship of all buildings, grounds, and public spaces on campus. The Facilities Division helps enrich the lives of those in the campus community and surrounding region by creating and maintaining a welcoming, attractive, and safe physical environment for its residents, students, staff, neighbors, and visitors.

The Division of Facilities Planning and Operations ensures the environmental health and safety of the campus by leading the master planning and campus design; and construction, advancing sustainability initiatives; administers environmental health & safety management for the Central utilities and Plant operations and maintenance initiatives.

The Division of Facilities Planning and Operations supports the university's ambitious plans to include doubling enrollment to 25,000 students by 2023. To reach that goal, the university will construct several facilities, including new buildings for the Colleges of Business and Engineering, a housing village, a health sciences facility and academic buildings to serve the entire university. These projects, more than $500 million worth of construction over the next five years, will generate much needed construction jobs in the short-term and increase access to higher education in the long-term.

Division of Health Sciences

Kenneth Blank
Senior Vice President
600 Whitney Ave.
856.256.5850
blank@rowan.edu

The Division of Health Sciences works with deans and other administrators to integrate and build nationally recognized academic and research programs related to the health sciences.
Division of Research

Shreekanth Mandayam  
Vice President  
James Hall, Room 3128  
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shreek@rowan.edu

With its focus on sponsored research, the office of the Vice President for Research is responsible for promoting, supporting and administering the research, scholarly and creative activity of Rowan faculty, staff and students. The Office of Research oversees three departments and the South Jersey Technology Park.

Office of Sponsored Programs  
Sarah Piddington  
James Hall, Room 3126  
Director  
856.256.5482  
piddington@rowan.edu

The mission of the Office of Sponsored Programs is to provide Rowan faculty with information and guidance for the submission of proposals to federal, state, and industrial sponsors, and to provide effective stewardship of awarded funds.

Office of Research Compliance  
Sreekant Murthy  
600 Whitney Avenue  
Chief Research Compliance Officer  
856.256.5853  
murthy@rowan.edu

The Office of Research Integrity and Compliance is committed to responsible and ethical conduct of research and compliance with all applicable laws, regulations.

Office of Technology Transfer  
Mina W Zion  
South Jersey Technology Park  
Director of Technology Commercialization  
856.256.5097  
zion@rowan.edu

The Office of Technology Commercialization (OTC) is responsible for aligning innovations to respond to commercially unmet market needs.

South Jersey Technology Park  
Shreekanth Mandayam  
Executive Director  
107 Gilbreth Parkway  
Mullica Hill, New Jersey  
856.256.4099  
shreek@rowan.edu

The goals of the South Jersey Technology Park are to expand and strengthen Rowan's research and learning capacity, establish a technology-based entrepreneurial economy, and create value for surrounding communities.

Division of University Advancement  
R.J. Tallarida  
Associate Vice President for University Advancement  
856.256.5413  
tallarida@rowan.edu

The mission of the Division of University Advancement is to build strong, lasting relationships with the University among alumni, donors and other important constituents to encourage investment in and support of the University. The Division provides leadership and assistance to garner support for the institution and enhance its reputation and visibility among its internal and external constituencies through strategic relationship building, fundraising and stewardship. Strong alumni programs and services help promote the interests of the University, its alumni and the community. The Division oversees four functions: Development, Alumni Engagement, Advancement Services and the Rowan University Foundation.
Through the cultivation and establishment of new relationships, and the continuance of ongoing relationships, the Division works to promote and advance the overall mission of the University and expand its margin of excellence.

Cooper Medical School of Rowan University

Paul Katz, MD  
Founding Dean  
Medical Education Building, CMSRU, Camden  
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katzp@rowan.edu

The Cooper Medical School of Rowan University (CMSRU), located in Camden, NJ, admitted its inaugural class in August 2012 and is the first new medical school to be established in New Jersey in 35 years. CMSRU is committed to providing humanistic education in the art and science of medicine within a scientific and scholarly community in which inclusivity, excellence in patient-care, innovative teaching, research, and service to our community are valued. CMSRU received preliminary accreditation from the Liaison Committee on Medical Education (LCME) in June 2011. Preliminary accreditation is the third step of the five-step LCME accreditation process, which is complete when the first class graduates.

Rowan University School of Osteopathic Medicine

Thomas A. Cavalieri, DO, FACOI, FACP  
Dean  
Academic Center, RowanSOM, Stratford  
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cavalita@rowan.edu

The Rowan University School of Osteopathic Medicine (RowanSOM) joined Rowan in July 2013. Established in 1976, RowanSOM is New Jersey’s only osteopathic medical school. RowanSOM also includes three nationally recognized institutes for research and treatment, the NJ Institute for Successful Aging, the Child Abuse Research Education and Service (CARES) Institute, and the NeuroMusculoskeletal Institute (NMI). The UMDNJ-School of Osteopathic Medicine is dedicated to providing excellence in medical education, research and health care for New Jersey and the nation. An emphasis on primary health care and community health services reflects the School’s osteopathic philosophy, with specialty care and centers of excellence demonstrating our commitment to innovation and quality in all endeavors. The School seeks to develop clinically skillful, compassionate and culturally competent physicians from diverse backgrounds, who are prepared to become leaders in their communities. RowanSOM is committed to expanding Graduate Medical Education offerings and to ensuring the successful placement of 100% of our graduates into residency programs. Rowan University School of Osteopathic Medicine is accredited by the Commission on Osteopathic College Accreditation (COCA).

Graduate School of Biomedical Sciences

Carl Hock  
Senior Associate Dean  
University Doctors Pavilion, RowanSOM, Stratford  
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hock@rowan.edu

The Graduate School of Biomedical Sciences (GSBS) became part of Rowan University in July 2013. GSBS offers a Ph.D. in Cell and Molecular Biology; M.S. in Cell and Molecular Biology; Master of Science in the Biomedical Sciences (M.S.; thesis); Master of Biomedical Sciences (M.B.S.; non-thesis); Certificate in the Biomedical Sciences; and Master of Science in Molecular Pathology and Immunology (M.S.; thesis), along with several dual degree programs.

Rowan University at Camden

Tyrone W. McCombs  
Assistant Provost and Dean  
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mccombst@rowan.edu

Rowan University at Camden is conveniently located in the University District of Camden, New Jersey. The campus currently offers graduate and undergraduate programs. The Campus has experienced positive growth from the early beginnings as Glassboro State Urban Center, providing training for local teachers and assistants, to a growing branch campus with academic majors, graduate programs, an English as a Second Language program, an Educational Opportunity Fund (EOF) program, and a variety of additional academic and student services.
All courses at Rowan at Camden are taught by members of the university faculty who take pride in teaching and who make student learning their top priority. The academic schedule accommodates the needs of both traditional and nontraditional students. The University provides a daily shuttle bus which travels between our Camden and Glassboro campuses to provide both an urban and suburban university experience for all Rowan students.

Undergraduate students may enroll in Sociology, Law and Justice and Elementary Education majors. In addition to these majors the campus also has an intensive academic English as a Second Language Program (ESL). The IELP at Rowan at Camden has a forty year history. Committed to providing international students, immigrants and newcomers access to higher education, the IELP integrates academic content with language competencies so students are well-rounded in their preparation for university study.

Rowan at Camden currently offers the following graduate programs:

The Ed.D. program in Educational Leadership at Rowan at Camden prepares educational professionals to serve in leadership roles within our educational systems. The Ed. D. program is an executive style part-time program offered in an accelerated face-to-face format. The focus of the program is on educational issues in P-16 settings.

The Certificate of Graduate Studies (COGS) English as a Second Language (ESL) Education is a non-degree graduate program leading to a New Jersey K-12 certification in English as a Second Language.

Rowan at Camden also has many programs to provide support and services to other members of our neighboring community. For over 25 years, the campus has been the home of CHAMP/GEAR UP, a program providing pre-college services to youth in high school. In addition, the campus also provides an Upward Bound program for high school English Language Learners. As an active member of the Camden community, Rowan University leads many initiatives to provide access to higher education and educational programs for our neighbors.

As we look toward the future, we plan to expand the campus. We will increase the access to higher education for our undergraduate and graduate populations through new programs of study and academic majors.

Division of Student Life

Richard L. Jones
Vice President and Dean of Students
Savitz Hall, Room 203
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The Division of Student Life provides and supports a collaborative learning environment that promotes the education of the whole person within a global society. Student Life is dedicated to actively engaging students by encouraging healthy life choices, multicultural competency, personal and professional growth, campus and community involvement, civic responsibility and leadership development. As an integral partner in the educational process, Student Life is committed to student learning and continual improvement through ongoing assessment and review of its programs and services.

The departments within the Division of Student Life include: Academic Success Center (Disability Resources and Veterans Affairs) Career Management Center (CMC), Counseling and Psychological Services, Dean of Students, Dining Services, EOF/MAP, Community Standards and Commuter Services, Multicultural Affairs, Recreation Center, Residential Learning and Housing, Service Learning, Volunteerism & Community Engagement, Student Activities, Student Center, and Student Health Center. These departments are responsible for numerous programs including Greek Affairs, Intramurals, Living and Learning Communities, Mentoring, Orientation, Parent & Family Program, Rowan After Hours, Student Leadership, the Student Government Association, and Student University Programming.

In addition, the Office of the Vice President for Student Life and Dean of Students provides guidance and support to students in the following areas; students facing prolonged absences due to a health problem or other extenuating circumstances; reporting sexual assault; and other related student issues.

Academic Success Center

John Woodruff
Director
Savitz Hall, 3rd floor
856.256.4234
woodruff@rowan.edu

The Academic Success Center provides a myriad of comprehensive programs and services that assist students in enhancing and maximizing their academic potential from Orientation through Graduation. The Center provides services in the following areas; tutorial services, veterans affairs, disability resources, testing/basic skills, academic coaching program, and an array of academic support workshops.
Camden Campus Student Services and Educational Opportunity Fund

Donavan D. McCargo, Ed.D.
Associate Dean for Student Life
Rowan University (Camden Campus)
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The mission of Rowan University at Camden student services is to provide a welcoming campus with access to resources and services that help to enrich campus life for Rowan University students at the Camden campus. Student services at the Camden campus encompasses, the shuttle service, Basic Skills testing, student activities, tutoring, and other services that support the academic, social, and personal needs of students. In addition, through collaboration with the Glassboro campus, students are able to visit with Career Management Center (CMC) staff, academic advisors in Law and Justice and Sociology, and personnel from the Counseling and Psychological Services.

Rowan University at Camden also offers an Educational Opportunity Fund Program (EOF). The Educational Opportunity Fund (EOF) Program of Rowan at Camden provides students who are financially or academically disadvantaged New Jersey residents the opportunity to pursue a degree. The EOF students are required to attend a summer pre-college program. During the program, students are enrolled in college preparatory and developmental courses. At the end of the summer program students are evaluated for acceptance to the University for the fall semester.

Career Management Center (CMC)

Lizziel Sullivan-Williams
Director
Savitz Hall
856.256.4456
sullivanl@rowan.edu

The mission of the Career Management Center (CMC) is to engage students in the development and implementation of meaningful educational and career goals consistent with their personal values, interests, and abilities. To this end, the office team helps students and alumni create an effective framework for a lifetime of active career management through one-on-one counseling, workshops, recruitment programs, career fairs, job posting databases and by promoting strong partnerships with employers, academic departments, and the university community.

Counseling and Psychological Services Center

David F. Rubenstein, Ph.D.
Senior Director
Savitz Hall, 3rd floor
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The Counseling and Psychological Services Center (CPSC) provides confidential mental health and substance abuse services to enrolled students. The Center provides individual and group counseling, triage and emergency evaluations, psychological testing and outreach programs in the area of mental health and substance abuse prevention. Some common areas addressed in counseling for college students include addressing academic stressors, coping with personal and family relationship issues, stress and anxiety management, coping with depression, eating and body image issues, dealing with grief and loss, trauma and substance use.

The University's Stress Management and Response Team (SMART) is coordinated through the Counseling Center and each professional staff is a core member of the team. This university-wide group is available to meet with various divisions, departments, organizations, and groups on campus in order to assist with response to traumatic events that impact particular groups of students or university community as a whole.

Educational Opportunity Fund/Maximizing Academic Potential

Penny McPherson
Associate Dean
Savitz Hall, 3rd floor
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The mission of the EOF/MAP program is to provide access to a community of learners that embrace high academic standards and an appreciation of learning. Through a holistic approach, we will value each student’s unique gifts and talents and provide an environment that embraces and celebrates diversity. Consistent with the University mission, we will foster the intellectual, critical thinking and personal development of students, which enables them to live as essential contributing members of a multicultural society. The ultimate goal of the EOF/MAP program is to graduate students.
**EOF Program Description** The Educational Opportunity Fund Program is a state funded alternative admissions program established specifically to provide access to higher education for highly motivated low-income students who do not meet Rowan University’s regular admission criteria. Eligible students receive a maximum amount of financial aid based on their individual need.

The four main requirements for applicants before consideration are:

1. At least one year residency in New Jersey.
2. A background of historical poverty as indicated by the Free Application for Federal Student Aid (FAFSA).
3. Potential for college level success as demonstrated by an interview, letters of recommendation, etc.
4. A High School or General Equivalency Diploma.

**MAP Program Description** Maximizing Academic Potential (MAP) is a special admissions program designed for highly motivated students who do not meet Rowan University’s regular admission criteria. There are no financial eligibility criteria for the MAP program, although students are encouraged to complete the FAFSA. To be considered for the MAP program, students must submit the standard Rowan University admissions application with supporting documentation. Admissions officers identify potential candidates, review admission information and conduct student interviews to determine admittance.

Selected students of the EOF and MAP program are conditionally admitted and required to participate in a six week summer bridge program, the Pre-College Institute (PCI). This program provides college survival skills, leadership skills, academic coursework and support, and information concerning the college environment. During PCI, the EOF/MAP staff evaluates the students’ demonstrated ability to successfully transition into Rowan University and makes a recommendation regarding the appropriateness of fall admission.

EOF/MAP students are assigned an EOF/MAP counselor to provide a broad range of academic and personal support services, including counseling, tutoring, and leadership development from freshman year through graduation. EOF/MAP Counselors interact with students in individual and small group settings. Financial assistance is provided to qualified students.

**Dr. Harley E. Flack Student Mentoring Program**

Gardy J. Guiteau  
Assistant Director  
Savitz Hall 3rd Floor  
856.256.5495  
harleyflackmentoring@rowan.edu

The Dr. Harley E. Flack Student Mentoring Program (comprised of three separate components: the male student mentoring program, the Ujima female student mentoring program, and the high school mentoring program) is an academic success and retention program that aims to improve the academic and professional success, retention rates, and graduation rates of active program participants. The program’s focus is to enhance students’ overall university experience; support students in developing core academic, personal, professional and cultural skills; and foster in students some core civic and leadership proficiencies that will serve them personally and professionally.

**Male Student Mentoring** Established in 1992 under the auspices of the Executive Vice President/Provost, Dr. Harley E. Flack, the male component of the Dr. Harley E. Flack Student Mentoring Program is a student mentoring support initiative whose goal is to enhance young men’s overall university experience. Peer mentors known as Focused Peers and faculty/staff Professional Mentors work to empower male students with guidance, opportunities for reflection, and leadership possibilities to help them reach their educational and professional goals while at Rowan.

**Ujima Female Student Mentoring** Since its inception in the spring of 1995, Ujima—a Swahili term translated as “collective responsibility” – has fulfilled the need of Rowan women to connect with professional role models who would support them in fulfilling their personal and career goals. Peer mentors known as Sisterlinks and faculty/staff Professional Mentors support and facilitate the academic success, empowerment, career preparation and leadership ability of female students through mentorship.

**High School Mentoring** This most recent component of the Harley E. Flack mentoring program serves as a leadership opportunity for first-year Rowan students who serve as Mentoring Ambassadors to provide on-site mentorship in neighboring high schools. Rowan students develop group facilitation and other leadership skills while supporting high school students in thinking about the importance of higher education as well as the attitudes and skills necessary for successfully completing high school and moving on to college.

**Health and Wellness**

stepup@rowan.edu

Health and Wellness is an integrated branch within Student Life consisting of Student Health Services, Counseling and Psychological Services. Our departments place an emphasis upon students making lifestyle choices now that will have a positive impact upon health throughout the college experience and beyond. Because we recognize that holistic health and wellness is much broader than traditional concepts of health, we actively partner with other departments within Student
Affairs and the university at large to promote campus wide healthy choices through "RU Ready to STEP UP?" This campaign actively encourages students to do the following:

- Safe Choices
- Think Healthy
- Embrace the Rowan Spirit
- Participate
- Understand and Appreciate Others
- Preserve Resources!

**Student Health Services**
Scott Woodside
Director for Student Health
856.256.4333
wellnesscenter@rowan.edu

Student Health Services (SHS) of Rowan University strives to remove health-related barriers to learning, to promote optimal wellness, to enable clients to make informed decisions about health issues, and to empower students to be self-directed and well informed health care consumers.

Licensed physicians, nurse practitioners and registered nurses provide quality, professional healthcare to all students who are matriculated and currently enrolled at Rowan University.

All incoming matriculated students must provide SHS with a complete health record that can be downloaded from our website. This packet has simple, yet detailed information regarding your immunization history and other health requirements that must be submitted by July 15th (December 15th for Spring admission).

All matriculated students are required to have health insurance as a condition of full time enrollment at Rowan University. To enroll in the health insurance plan offered by United Healthcare, visit www.firststudent.com and follow the instructions. To waive the Rowan University health insurance plan, visit the Health Insurance tab on the Bursar's Office website and follow the instructions www.rowan.edu/bursar . Failure to waive the United Insurance plan will result in automatic enrollment into the plan. Further information is available at the "Health Insurance" or the "Mandatory Pre-Entrance Health Forms" tabs at the left on our website www.rowan.edu/health

**Healthy Campus Initiatives**
Allie Pearce, MA
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856.25.5715
pearce@rowan.edu

Healthy Campus Initiatives (HCI) educates students about making healthy decisions and choices regarding their personal wellness that will enhance their college experience. All members of the Rowan community are encouraged to attend workshops, programming, and campus events aimed at increasing knowledge and developing attitudes and beliefs that promote health and wellness in several areas. These areas include fitness, nutrition, sleep, cold and flu, sexual health, substance use, depression and anxiety, eating disorders, stress management, and relationships. Students are given opportunities for leadership through internships, field placements, and becoming members of the peer education group, StudentCare.

**Community Standards and Commuter Services**
Joseph Mulligan
Associate Dean
Chamberlain Student Center, Suite 210
856.256.4242
mulligan@rowan.edu

The Office of Community Standards and Commuter Services articulates and upholds the standards of behavior expected within the University community. The office addresses violations of the student code of conduct through the university disciplinary system to ensure respect for all members of the community and the maintenance of a collaborative and learning-centered environment. The commuter and off-campus student services function of the office is responsible for addressing the concerns and unique needs of commuter students. The office provides opportunities through education, resources, and support services the office provides opportunities for the off-campus and commuter student populations at Rowan to develop a sense of connectedness and community.
Multicultural Affairs
John T. Mills
Assistant Director
Student Center, Room 214
856.256.4448
millsj@rowan.edu

The Office of Multicultural Affairs (OMA) works diligently to advance and institutionalize diversity at Rowan University at both the curricular and co-curricular level. In order to achieve this, we work closely with several entities of the institution to provide cultural programming celebrating the various cultures and heritages that comprise the Rowan community. The OMA serves as a support for those campus organizations whose membership is primarily made up by the under-represented student body of Rowan University. The Office works with the various student cultural organizations to assist all participants in program development and membership growth.

The primary goal of the OMA is to assist the University and the student body in creating a functional and safe multicultural environment that allows for academic and life experiences that will benefit graduates of Rowan. It is our intent to work towards enhancing the climate of the institution so that all students, staff and faculty feel safe in expressing themselves intellectually and socially.

Office of Greek Affairs
Kelvin Rodriguez
Coordinator
Chamberlain Student Center, Suite 210
856.256.4296
rodriguezk@rowan.edu

Fraternities and sororities are Greek-letter organizations that join together to offer fellowship, leadership opportunities, participation in campus activities, and service to both the University and surrounding communities. The Office of Greek Affairs serves as the primary liaison to the recognized Inter/National fraternities and sororities at Rowan University. The mission of the Greek Community at Rowan University is to encourage and promote intellectual curiosity through academic achievement and to develop the personal and social skills of students by providing leadership opportunities through self-governance. In addition, the Greek Community strives to promote service through the University's co-curricular programs and through community involvement. The co-curriculum, established by Rowan University's Mission Statement on student development, promotes growth toward attitudinal and ethical development; and, responsibility to self and others through active participation in the betterment of the campus and larger community. The Greek Community is expected to plan its activities with academic and co-curricular mission of the University in mind.

Orientation and Student Leadership Programs
Drew Tinnin
Director
Savitz Hall 203
856.256.4041
oslp@rowan.edu

The Office of Orientation and Student Leadership Programs (OSLP) assists new students in their transition to Rowan University. Orientation and Student Leadership Programs directs programs such as freshman and transfer orientation and Leadership Rowan.

Orientation and Student Leadership Programs begins the integration process of new students into the intellectual, cultural, and social climate of the institution, and provides a capstone to students’ co-curricular learning and development through leadership certification.

Leadership Rowan
Rowan University recognizes the value of preparing students for leadership roles. Through education, enrichment and empowerment, Leadership Rowan enables students to transform themselves, their communities, and the world through three levels of leadership experiences:

1. Leadership Training
2. Leadership Application and Organizational Effectiveness
3. Leadership Sustainability

Orientation
Through on-campus and online orientation programs, undergraduate students are introduced to the concepts of academic success, co-curricular enrichment, dual community membership, & holistic wellness and discover pathways to engagement
through STEP UP. Orientation programs provide opportunities for parents & family members to support their student's transition. The Office of Orientation and Student Leadership Programs coordinates and implements these programs in collaboration with academic and student service units who share the responsibility for welcoming our new students and their parents and family members.

**Student Enrichment and Family Connections**

**Julie A. Peterson**  
**Director**  
**Student Center, Room 216**  
**856.256.4596**  
**peterson@rowan.edu**

Rowan University's Parent and Family Program commits itself to establish and maintain a sound partnership with parents and guardians to enhance and support their student's university experience and promote student success.

We understand that you have a large personal and financial investment in your son's or daughter's education, and thus Rowan University. You want what we want: success for your son or daughter, and it is right and proper that you be a part of our community in a way that promotes the success of that student we all care so much about.

The Office of Student Enrichment and Family Connections achieves this collaborative partnership by being available to assist and guide parents and guardians in facilitating better communication with the University. The office works to nurture the relationship with parents and family members of Rowan University students by supporting student achievements and helping carry out the University carry out its mission. Parents and guardians are natural allies with the University as we seek to help students find success. Parents' hopes and goals are consistent with the Division of Student Life’s mission to "cultivate the development of he whole person within a global society” by providing encouraging healthy life choices, multicultural competency, personal and professional growth, campus and community involvement, civic responsibility, and leadership development. The Parents and Family Program has a special interest in establishing cooperative relationships with academic departments and student services to establish parents ad a vital constituent of the University.

**Parents' Orientation**

Designed to complement Student Orientation, Parents' Orientation helps parents and family members get acquainted with the many different programs and services offered to students and addresses questions and concerns each may have. Interactive programs are offered on:

- Academic Requirements
- Expectations
- Student Services
- College Success
- Coping with "empty-nest" syndrome

**Welcome Weekend – “Aboard The Brown-Eyed Susan”**

This is an opportunity to meet other parents and give yourself some much needed pampering after a long day of moving boxes into your student's room. Take advantage of services including reflexology, blood pressure screening, manicures, relaxation techniques, massages, games, healthy snacks and activities based on "STEP Up!" It's a wonderful way to send yourself off in style.

**Family Weekend**

Offered in the fall each year, Family Weekend celebrates the parents, siblings and other family members of our students. Rowan University families are invited to attend in this time-honored tradition and join their students for the traditional picnic, football game, and other exciting events.

**Recreation Center**

**Tina Pinocci**  
**Assistant Vice President**  
**856.256.4900**  
**pinocci@rowan.edu**

The Student Recreation Center staff is committed to providing exceptional programs, services, and facilities that promote and encourage a balanced, healthy lifestyle. We are dedicated to creating a safe and welcoming environment that enhances student learning and skill development, fosters enjoyment and appreciation for recreational life, and enriches the quality of life for the Rowan Community.

Rowan University's Recreation Center is a three-story, 76,000 square foot recreational activities facility. The building houses an eight-lane swimming pool, a three-lane indoor track, a three-court multi-sport gymnasium, five racquetball courts (one used for indoor cycling) and a group exercise room. The facility also has a 9,000 square foot fitness and weight room, a conference room, locker/shower facilities, and a smoothie bar and café. The main desk of the facility operates as ID
access/control area, equipment checkout center, and as the program/membership registration area. The Recreation Center covers a broad range of programs and services in addition to maintaining ready access to the facility. From a programmatic standpoint, the Rec Center provides over 235 structured programs per year in the areas of intramural and club sports, as well as fitness, instructional activities, special events and youth activities. The building maintains 18 hour days during the academic year, with modified hours during the weekends, holidays, and breaks over the course of the year. Although the foundation of our department rests on serving student recreational needs as a priority, we are also committed to a broader constituency.

**Residential Learning and University Housing**

Travis Douglas  
Director  
Savitz Hall, Room 103  
856.256.4266  
housingquestions@rowan.edu

The Office of Residential Learning and University Housing exists to support each individual resident student in all areas of their university experience. We expect that each resident student will play an active part in the development of a community that embraces diversity, personal growth, scholarship and respect of self, others, and the environment.

**Residential Learning Programming:** Residential Learning and University Housing coordinates programs designed to integrate high quality engagement with learning. The Residential Learning staff works with various members of the university community to provide a living/learning environment that is unique to the Rowan Experience.

**Mandatory Housing:** All unmarried undergraduate full-time students, under the age of 21, whether or not emancipated, who will not be living in the residence of their parents or legal guardian, must reside in the university residential facilities until completion of their second academic year (or four full-time semesters).

**Residential Facilities:** Rowan University offers two types of on-campus co-ed housing, residence halls and apartments. The Residence Halls are as follows:

- Evergreen Hall
- Laurel Hall
- Mullica Hall
- Magnolia Hall
- Mimosa Hall
- Oak Hall
- Chestnut Hall
- Willow Hall

The Apartments are as follows:

- Edgewood Park Apartments
- Rowan Blvd. Apartments
- Triad Apartments
- Rowan Townhouses

On-campus apartments are reserved for upperclassmen. Students with questions concerning housing facilities, arrangements or contract agreements should be directed to the Residential Learning and University Housing Office, Savitz (856) 256-4266.

**Service Learning, Volunteerism, and Community Engagement**

Andrew Perrone  
Assistant Director  
Chamberlain Student Center, Suite 210  
856.256.4597  
perrone@rowan.edu

The Office of Service Learning, Volunteerism & Community Engagement (SLVCE) offers numerous opportunities for students who want to give back to the community as volunteers. SLVCE at Rowan University provide students the choice to combine classroom learning with an active service component, while linking service to deeper levels of self-reflection and self-discovery around values, skills and academic content. SLVCE provides opportunities for students to extend their learning beyond the classroom and into the communities around them. Opportunities for volunteerism and community service are provided through numerous community partner agencies, ongoing volunteer programs, and service organizations & clubs.

Students who participate in service learning and volunteerism are able to:

- Develop civic-mindedness and social responsibility
- Expand academic learning to become real and relevant
- See whether career choices are good ones
- Examine moral and ethical issues
- Find the experiences personally rewarding

**Student Activities**

Constantine Alexakos  
Assistant Director  
Chamberlain Student Center, Room 209  
856.256.4696  
alexakos@rowan.edu
The Office of Student Activities (OSA) supports the mission of the Division of Student Life. This office is also responsible for oversight and advising of both Rowan After Hours and Student University Programmers. Through constant collaboration with campus partners, the OSA plans and implements co-curricular programs for all students that are designed to stimulate personal development, create opportunities for student engagement, and contribute to building campus community.

**Student Center**

**Tina Pinocci**  
Assistant Vice President  
Chamberlain Student Center  
856.256.4604  
pinocci@rowan.edu

The Chamberlain Student Center serves as a safe and welcoming environment with unlimited opportunities for personal development and enhanced student learning experiences. Through quality services, programs and facilities, the Student Center is "more than just a building."

The main administrative office of the Chamberlain Student Center is responsible for a variety of services within the building, including scheduling and reservations for meeting or program spaces, assistance with set-up or AV tech needs, employment of student staff, and enforcement and interpretation of building policies and procedures. The administrative staff also oversees the following service areas within the facility: the Information Desk, ID Processing Center, Profs Place, and the game room.

Additional offices and services housed within the facility include: Student Activities, Greek Life, Multicultural Affairs, Service Learning, Volunteerism & Community Engagement, Community Standards and Commuter Services, Student Government Association, Student University Programmers, Student Publications, Mailroom and Campus Dining Services (Food Court, Marketplace, Owl's Nest, Profs Place, Jazzman's, and Marketbasket Convenience store and Catering).

**Student Government Association**

**Chamberlain Student Center**  
856.256.4540

The Student Government Association (SGA), the official voice of students in University affairs, coordinates student activities on campus. All fulltime and part-time undergraduate students become members of the SGA upon payment of the student activity fee.

The SGA maintains meaningful student input in University affairs, serves as a funding source and coordinating group for student activities and provides services for the welfare of the students and the University. The SGA encourages the concept of diversity by involving students with as broad a variety of ideas and backgrounds as possible. To accomplish this, SGA opens many positions to students through appointment or election. These range from serving as class advisory board members to being president of SGA.

An elected executive board and senate consisting of student representatives of academic departments, classes and bureaus, administer the SGA. Students interested in running for or being appointed to a position in SGA may seek information in the SGA suite on the first floor of the Student Center or call 856-256-4540.

**Other Student Organizations**

At Rowan University, SGA charters and finances over 100 student clubs and organization. These organizations provide a wide variety of co-curricular and extra-curricular activities to meet the varying interests of Rowan University students.

Students can become members of organizations by contacting the organization's president or advisor directly. All organizations have a mailbox located in the SGA suite. Students interested in forming a new organization can request a new charter for it from SGA.

Student organizations are financed from fees charged to all matriculated undergraduate students. The Student Government Association assumes the responsibility for distributing all monies to the various organizations.

**Division of Strategic Enrollment Management**

**Jeff Hand**  
Vice President  
Savitz Hall, Third Floor  
856.256.5185  
handj@rowan.edu

The Division of Strategic Enrollment Management encompasses several key areas at Rowan University committed to attracting high caliber students and retaining them through graduation. In short, we are a division dedicated to our students' success. SEM includes the departments of Admissions, Financial Aid, University Web Services, the International Center,
Conference & Event Services, Student Diversity, Office of University Scheduling, and in the Retention area, University Advising Services, the Office of Academic Transition Programs, the Tutoring Center, Testing Services, and the Basic Skills Math program. Together, these departments recruit students, help finance their education, advise them on college and career choices, and communicate with them via the Rowan University web and mobile sites. Our main office is in Savitz Hall but, SEM is literally all over Rowan. While you may not have realized it, we met you before you first stepped foot on campus, we'll advise you while you're here and, hopefully, our impression will stay with you long after you leave. The Division of Strategic Enrollment Management provides academic support and retention programs for students from their first semester through their graduation.

**Academic Transition Programs**

Rory McElwee  
Assistant Vice President  
Savitz Hall, Third Floor  
856.256.5187  
mcelwee@rowan.edu

Sean Hendricks  
Assistant Director  
Savitz Hall, Third Floor  
856.256.5655  
hendrickss@rowan.edu

The Office of Academic Transition Programs provides programming and services to support freshman during their transition to Rowan and their transition to a major (for undeclared students in the Exploratory Studies Program). For freshmen, this office oversees the Rowan Seminar program, which is a required course for all new freshmen to support their transition to college-level academic work and to the Rowan community. For Exploratory Studies students, the office provides programming including the Exploratory Workshop, a co-curricular series of workshops addressing the process of exploring majors, careers, and one's own interests. This office also supports students who are seeking to reenroll at Rowan after a period of leave.

**Admissions**

Albert Betts Jr.  
Director  
Savitz Hall, Second Floor  
856.256.4200  
admissions@rowan.edu

Rowan University admits applicants to undergraduate study on the basis of academic and personal qualifications. Recruitment and admission procedures are designed to enroll students who will benefit from and contribute to the University. In addition to the traditional admission program, the University is also interested in providing educational opportunities for non-traditional students, i.e., the disadvantaged, minority students, adult students, veterans, etc.

**NOTE:**

Admission to all Rowan post-baccalaureate and graduate programs (both traditional-format and non-traditional-format) as well as admission to any Rowan non-traditional-format (online, off-site, hybrid, accelerated) undergraduate program is coordinated by the CGCE Admissions Office (cgceadmissions@rowan.edu or www.rowan.edu/cgce).

Rowan’s admission process adheres to general policies established by the New Jersey Commission on Higher Education and the Rowan University Board of Trustees. Applicants are carefully considered in view of their total secondary school record, performance on the SAT I or ACT examination, school and community activities, post-secondary school experiences, and the University's estimate of the applicants potential as students and members of society. Applicants for Art, Music, Theatre and Dance are also required to complete an on-campus portfolio review or audition and interview.

Deadlines for submitting freshman application and official records:

**January** - Applicants should take the SAT or ACT exam no later than the January testing date to ensure receiving all test scores by the admission deadline date.

**March** - All applications, official high school transcripts and SAT/ACT scores, must be complete and received by the Admissions Office by March 1.

**Applications**

Rowan University accepts The Common Application for all freshman applicants. Transfer students cannot apply for admission via The Common Application and must use Rowan's internal application. Applicants should follow the links on the Rowan website to access these applications.
Eligibility for Admission
Applicants for admission to Rowan University must present certificates or transcripts proving graduation from an approved secondary school, or they must indicate that graduation is scheduled during the current scholastic year. GED equivalencies are considered in lieu of high school diplomas. Applicants should ensure that this information is forwarded to the Admissions Office. Applicants must show they have completed or are in the process of completing a minimum of 16 college preparatory courses to be eligible for consideration for admission. The New Jersey Commission on Higher Education has set the following college preparatory guidelines for admission:

- 4 units - English
- 2 units - laboratory science*
- 3 units - college prep mathematics (Algebra I & II, geometry)*
- 2 units - social studies
- 5 units - Additional work in at least two of the following areas: English, history, languages (minimum of two units in one language), mathematics, social science and science.

*The College of Engineering seeks applicants with 3 units of laboratory science including chemistry and physics and 4 units of college preparatory mathematics including pre-calculus (calculus preferred).

Entrance Examinations
Applicants should submit either the SAT I or the ACT test scores in support of their application to Rowan University.

Scholastic Assessment Test
SAT I tests are given in numerous centers, usually in high schools, throughout the United States. Applications should be sent to College Entrance Examination Board, P.O. Box 592 Princeton, NJ 08540, or online at www.collegeboard.com. Applications should request that results be sent to Rowan University: C.E.E.B. Code 2515.

American College Testing Program
Student registration manuals are available in most high schools. Materials can also be obtained from ACT, P.O. Box 168, Iowa City, Iowa 52240, or online at www.act.org.

Deferred Admission
Rowan University is aware and, in many cases, approves of the feeling of many high school seniors that a year's experience between high school and college would be beneficial. A year away from formal academic work frequently sharpens the student's sense of direction and purpose. Any student who is accepted, pays the admission deposit, and then chooses to defer registration in courses at Rowan, must request deferred admission status before June 1. Deferred admission is not an option for those admitted to special admission programs or the EOF program.

Out-Of-State Applicants
Rowan University welcomes applications from out-of-state students.

Advanced Placement
Rowan University awards credit for the College Entrance Examination Board Advanced Placement examinations for scores of 3, 4, or 5. Candidates must arrange to have official score results forwarded to the University Registrar. Upon written request, degree credit equivalent to one semester's work (3 s.h.) will be awarded in that particular subject or its equivalent. Advanced placement credit is recognized as fulfilling general education requirements where applicable and will be considered as un-graded, transfer credit. The College-Level Examination Program (CLEP) is a series of examinations that allow students to demonstrate their knowledge in a wide range of subjects and receive credit. (See additional information in Course Credit by Examination.)

Campus Visits & Interviews
We encourage prospective students to visit our campuses. Campus tours are offered daily throughout most of the year. The University also holds numerous open house programs throughout the year. Specific dates are listed in admissions publications and on the Rowan University website www.rowan.edu For those interested in studying at the Camden Campus, you may contact the Camden Admissions officer at 856.361-2900 for a tour and information. Individual interviews are not required unless specifically requested by the Admissions Office.

Transfer Admission
Students who have completed a minimum of 12 semester hours of transferable credit by the application deadline are classified as transfer applicants. Rowan University admits transfer students on a competitive, space available basis. The cumulative GPA for all college work is the primary consideration for Rowan University's admission decisions. Although most programs require a 2.5 minimum GPA, some majors may also require completion of specific courses prior to admission. Transfer applicants should complete the following steps:

1. File an application for admission with all required documents and the $65 non-refundable application fee by March 1 for September entrance
2. Arrange to have official transcripts of all previous academic work sent from each college attended to Rowan's Admissions Office. Students with fewer than 24 credits completed by the deadline are also required to submit SAT or ACT scores and their high school transcripts.
3. Payment of a non-refundable enrollment deposit after being offered admission and then enrollment in courses, completes the admission process.

All potential transfers are accepted based on their academic credentials and choice of major. Candidates are given priority as follows: (1) completion of an associate degree or 60 transferable credits, (2) completion of 40-59 transferable credits, (3) completion of 24-39 transferable credits. County college transfer students are encouraged to complete the associate degree before transferring. Transfer students are encouraged to take advantage of information available through their community college transfer counselor, the Rowan University transfer equivalent information available on our website, and the NJ Transfer initiative www.njtransfer.org

Students who have been dismissed by their previous college are not immediately eligible for admission to Rowan University. Students must wait at least one year and show appropriate interim activities to be eligible for consideration. Students seeking to transfer into the Art, Music or Theater and Dance programs must contact the appropriate department to arrange for a portfolio review or audition. These evaluations must be completed before the application deadline. An admission decision cannot be made without results of the performance evaluation. Because transfer admission decisions usually are made on the basis of incomplete transcripts of credit, they are always subject to review on the basis of later information. Offers of admission may be withdrawn if students do not complete their semester in progress satisfactorily. The registrar's office and the faculty make specific evaluations of college transcripts for transfer of credit in the student’s major department. Students will receive an evaluation of previous coursework at the time of acceptance. Although applicable credits transfer, grades earned at other colleges do not affect the Rowan GPA.

Mid-Year Admission
Rowan University generally has junior level transfer openings at mid-year. Although other applicants may be considered on a space available basis, recent graduates of New Jersey community colleges and those who have completed at least 60 transferable credits from a four-year institution receive priority consideration for mid-year admission. The application deadline for consideration for spring admission is November 1.

Application Fee & Enrollment Deposit
A $65 non-refundable application fee is required of all applicants. After notification of admission to Rowan University, applicants must send a $100 non-refundable enrollment deposit by the deadline given in the admission letter. This deposit reserves a place for students in the formal enrollment process.

Fee Waiver: The $65 application fee may be waived by the University upon written certification by the applicant's school counselor or other school official that payment would constitute a financial burden to the applicant. Such requests must accompany the application.

Matriculation: The term matriculation means a student has been formally admitted to Rowan University. A student becomes matriculated by going through the admission process and paying the $100 enrollment deposit. The last step in the matriculation process is enrollment in classes. Entering freshmen and transfer students must register for courses in the semester for which they were accepted to maintain matriculation status.

Special Admissions - Maximizing Academic Potential
Rowan University is deeply committed to supporting the continued and increased enrollment of qualified students from underrepresented groups. To this purpose the University has developed the Maximizing Academic Potential program (MAP). This program enrolls qualified minority and other first generation college students based on the evaluation of their secondary school achievement, recommendations, and assessments of their motivation to succeed. Students admitted under the MAP Program are required to attend a summer enrichment program.

Educational Opportunity Fund (EOF) Program
This program provides access to college for students who are educationally and economically disadvantaged, and who are motivated and have the potential for success.

Students are admitted on the basis of their need for more appropriate educational opportunities, their leadership potential, academic promise and financial need rather than past academic achievement alone. Traditional admission criteria are not used to the same degree to evaluate EOF applicants. Emphasis is placed on personal recommendations, and assessment of potential rather than the accu-placer score, high school achievement and rank in class. GED equivalencies may be accepted in lieu of the high school diplomas.

The Admissions Office in conjunction with the EOF Office selects students. EOF students are required to successfully complete a structured summer program prior to entering their first fall semester. In the summer session, students are evaluated in various academic areas and receive concentrated developmental and supplementary instruction and tutoring as necessary. These supportive services are extended throughout the academic year.

Students who successfully complete the Pre-College Institute are invited to return for the fall semester and are fully integrated into the University and enrolled as matriculated students. The program staff provides a comprehensive program of guidance and counseling for EOF students. Information concerning financial aid available to EOF students can be found under or by contacting the Rowan University Admissions Office.
International Admissions
Rowan University welcomes international applicants. The International Center is responsible for the recruitment and support of international students at Rowan University. It coordinates programs and activities and provides a variety of services in cooperation with the Rowan campus community. Please contact the International Center located on the first floor of Robinson Hall at internationalapplicants@rowan.edu or 856-256-4239 or visit our website www.rowan.edu/internationalstudents for detailed information.

Placement/Basic Skills/Testing Requirements
Basic skills courses provide an appropriate curriculum for students with documented weaknesses in the areas of reading, mathematics, and writing. These courses also reinforce the general academic skills needed for a successful academic career. Transfer students with 30 or more transfer credits are exempt from basic skills courses and basic skills placement exams. Students must take any required basic skills course(s) beginning in their first semester at Rowan and each subsequent semester until the requirements have been fulfilled. Students do not receive graduation credit for passing basic skills courses. These courses do not count toward the minimum number of semester hours needed to complete the student’s major and/or degree requirements. The credits do count toward part- or full-time status for enrollment and financial aid purposes. Students with outstanding basic skills requirements after their first semester at Rowan are subject to registration holds until verification of appropriate progress can be established. For more information, please email testingservices@rowan.edu

Re-Entrance/Re-Admission To The University
Rowan students who have lost their matriculated status due to inactivity, withdrawal, or dismissal before completing their major programs and/or being awarded their bachelor’s degree must apply for reenrollment to the University. Students seeking re-enrollment should visit the website www.rowan.edu/atp and click on the Re-enroll at Rowan link on the left hand side of the webpage. From there, students should complete the re-enrollment inquiry form. Students will be notified via email of their re-enrollment status. Contact Sean Hendrick at hendrickss@rowan.edu in the Office of Academic Transition Programs with questions.

Rowan Students seeking a Second Bachelor's Degree
Students that have graduated from Rowan and would like to return to pursue a second bachelor’s degree should follow the re-enrollment process. Students should visit the website www.rowan.edu/atp and complete the re-enrollment inquiry form. Students will be notified of their re-enrollment status via email. Contact Sean Hendricks at hendrickss@rowan.edu in the Office of Academic Transition Programs with questions.

Basic Math Skills
Carol Rodano
Coordinator
Savitz Hall, Third Floor
856.256.4261
rodano@rowan.edu

The Basic Skills Math program offers MATH 01.094 Basic Algebra I and MATH 01.095 Basic Algebra II. These courses are designed to provide a solid foundation in developmental math skills to enable students to move on successfully to college-level math courses. Students' math placement (MATH01.094, MATH 01.095, or a college-level math course) is determined by SAT score or placement test, offered in the Testing Center.

College of Education Advising Center
Nicholas Schmelz
Coordinator
James Hall, Second Floor
856.256.4420

The College of Education Advising Center provides academic advising for students enrolled in College of Education programs. Additionally, informational meetings are available for students considering these programs.

Conference & Event Services
Walt Martin
Director
James Hall, Second Floor
856.256.5449
martinw@rowan.edu

The Office of Conference & Event Services is dedicated to strengthening the Rowan University community by providing comprehensive event management services, facilitating the effective and efficient year-round use of university resources, and
As an ACCED-I certified One-Stop Shop, the office delivers exceptional service through industry best practices. Providing clients with one contact, one contract, and one invoice for all aspects of their meeting or event results in streamlined communication and seamless delivery of services.

**Exploratory Studies**

*Office of Academic Transition Programs Savitz Hall, Third Floor*

**Rory McElwee**  
Assistant Vice President for Retention  
856.256.4500 x3776  
mcelwee@rowan.edu

**Sean Hendricks**  
Assistant Director  
856.256.5655  
hendrickss@rowan.edu

Exploratory Studies provides an academic home for students with less than 60 credits who have not yet selected a major. Students in the Exploratory Studies Program are housed within the College of Humanities and Social Sciences. Exploratory Studies students receive professional academic advising from the University Advising Center, and support from the Office of Academic Transition Programs, Rowan Seminar, and many other offices on campus. First-year students in the Exploratory Studies Program, who are not also in the Rowan Select Program, will be enrolled in the Exploratory Studies Workshop in their first semester to familiarize them with Rowan’s many resources and to begin the process of exploring majors, careers, and their own strengths and interests. Students may remain in Exploratory Studies until they have completed 60 credits (including all transfer credits). Students who have not selected a major at that time will be placed in the Liberal Studies/Humanities and Social Science major. However, most students select a major well before 60 credits. For more information, see www.rowan.edu or email exploratorystudies@rowan.edu

**Financial Aid**

*Sandra M. Rollins  
Interim Director  
Savitz Hall, First Floor  
856.256.4459  
financialaid@rowan.edu*

The Financial Aid Office strives to:

- Provide access to higher education by effectively managing federal, state, institutional, and private financial resources while adhering to any applicable laws, regulations, and policies
- Implement strategies to help recruit, retain, and graduate a diverse and talented student body
- Guide students and parents with financial aid information and resources that will enable students to achieve their educational goals

The Financial Aid Office is also the central office that services two Professional Schools:

- Rowan University School of Osteopathic Medicine (http://www.rowan.edu/som/index.php)
- Cooper Medical of Rowan University (http://www.rowan.edu/coopermed/)

**How to Apply** Students seeking assistance must file the Free Application for Federal Student Aid (FAFSA). The FAFSA is used to determine eligibility for assistance from the federal and New Jersey state financial aid programs. The FAFSA is available on the web at http://www.fafsa.gov. There is a paper version of the FAFSA which may be obtained only by calling 1-800-4-FED-AID. We encourage applicants to file their FAFSA on the web. It is very important to designate Rowan University as a college choice by including Rowan University’s federal school code 002609 on the FAFSA.

**Department of Education Title IV Programs**

**Federal Pell Grant Program**

Pell Grant is an entitlement program made available by the federal government. The amount of any grant is based on the results of a formula established by the federal government. Additionally, the amount of the grant is affected by the amount of funds available to the program and the number of credits the student is (will be) taking. To be eligible for this grant, students must meet other criteria:

1. Students must matriculate in an eligible, degree seeking program.
2. Students must be U.S. citizen or an eligible non-citizen.
3. Students must demonstrate financial eligibility as determined by the need analysis formula and Pell Grant table.
4. Pell now has a lifetime limit of 12 semesters of full-time study. *Two semesters of half-time enrollment would equal 1 semester of full-time enrollment. Two semester of less than half-time enrollment would equal one semester of half-time enrollment.

**Federal Supplemental Educational Opportunity Grants**

Federal Supplemental Educational Opportunity Grants (SEOG) are available to students who demonstrate exceptional financial need and who also receive Pell Grants. Students applying for financial aid are automatically considered for a Supplemental Educational Opportunity Grant.

**Federal Stafford Student Loan**

Through the Federal Direct Student Loan Program matriculated students enrolled at least half time may borrow a maximum of $5,500 for their freshman year, $6,500 for their sophomore year, and up to $7,500 for both their junior and senior years. Students apply by completing the Free Application for Federal Student Aid (FAFSA), indicating that they are willing to accept financial aid in the form of a loan. There are two types of Federal Stafford Loans:

1. **Subsidized**: If the student demonstrates need based on the FAFSA, the federal government will pay the interest charge while the student is enrolled at least half-time. Students must pay the principle and interest during the repayment period (6 months) following graduation or withdrawal from the university.

2. **Unsubsidized**: All matriculated students enrolled for six credits or more may receive a Federal Unsubsidized Stafford Loan regardless of family income. However, the student will have to pay all interest charges (interest accrues even while the student is attending the University) until the loan is fully repaid.

**Federal Parent Loan for Undergraduate Students (PLUS)**

Parents of matriculated, dependent, undergraduate students enrolled at least half-time and making satisfactory academic progress towards a degree or certificate may borrow up to the cost of education from the federal government. Parents must be citizens or eligible non-citizens of the United States and pass a financial credit check. The PLUS loan, when added to other financial aid and/or resources, may not exceed the total cost of education for that academic year.

**TEACH Grants**

Grants offered to students pursuing a career in teaching in high need subject areas i.e. math, reading specialist, sciences, etc. The grants are for up to $3,712 each year. Students must teach four years in a low-income school district to earn their grants. Students may receive up to $14,848 for Undergraduate study and up to $7,424, for Graduate study. If the recipient does not end up teaching at a low-income school district for the required four years, the grant will be treated as an unsubsidized student loan and must be repaid.

**Federal Work Study Program**

With funds supplied by the Federal government, Rowan University provides jobs both on and off campus during the academic year for students who qualify. Students should indicate an interest for this program on the FAFSA. Many work-study positions provide skills and experience, which will assist students in their career development. Students can arrange their hours to the time they have available to work. Hours worked cannot exceed 20 per week while classes are in session or 30 per week when classes are not held. For more information, please see our web site at the following link: [www.rowan.edu/financial_aid.html](http://www.rowan.edu/financial_aid.html)

**Institutional Work Study Program**

Students not eligible for Financial Aid based on need and are interested in employment should apply directly to the hiring department. The University offers student jobs during the academic year and summer. Positions vary from general office to professional opportunities. Many work study positions provide skills and experience, which will assist students in their career development. Students can arrange their hours to the time they have available to work. Hours worked cannot exceed 20 per week while classes are in session or 30 per week when classes are not held. For more information, check our web site at: [www.rowan.edu/financial_aid/workstudy.html](http://www.rowan.edu/financial_aid/workstudy.html)

**FINANCIAL AID PROGRAMS AVAILABLE TO RESIDENTS OF NEW JERSEY**

**Tuition Aid Grants (TAG)**

New Jersey Tuition Aid Grant (TAG) recipients must be residents of New Jersey for 12 consecutive months prior to receiving this grant. In addition, recipients must enroll as full-time undergraduates and must demonstrate financial need. Actual awards depend on state funding and the tuition charges. TAG awards are renewable annually provided continued eligibility. The New Jersey Higher Education Assistance Authority notifies students of their eligibility.

**Educational Opportunity Fund**

Established by the New Jersey State Legislature in early 1968, the Educational Opportunity Fund (EOF) helps disadvantaged students. Eligibility is judged on financial need and motivation for future academic work, not just on past grades or test scores. Students must live in New Jersey for twelve months before receiving this aid. To be considered for this program, students must submit the EOF Freshman application for admissions. These grants are renewable based upon continued eligibility. Rowan University's Educational Opportunity Fund Offices on the Glassboro and Camden campuses can provide more information.

**Undergraduate Students**: In order to receive financial aid, students must meet the minimum standards of Satisfactory Academic Progress. The standards for Satisfactory Academic Progress for financial aid purposes are different from the academic requirements of the university. In some instances, students experiencing academic difficulty may find that, while
they are permitted to remain in school, they may not receive financial aid until they achieve the minimum standards of Satisfactory Academic Progress. The determination as to whether a financial aid applicant is maintaining satisfactory academic progress is made each year upon receipt of the applicant’s Free Application for Federal Student Aid.

For a full description of the satisfactory academic progress standards, please download the Guide to Satisfactory Academic Progress, or call the Office of Financial Aid at (856) 256-4250.

To appeal a determination of Unsatisfactory Academic Progress, please download and complete the Satisfactory Academic Progress Appeal Form and return it to the Office of Financial Aid.

Graduate Students: Graduate student academic progress is determined by the Rowan University Graduate School. For more information please visit www.rowan.edu/graduateschool or call the Graduate School at (856) 256-4050.

FEDERAL RETURN OF TITLE IV FUNDS POLICY Federal regulations require Title IV financial aid funds to be awarded under the assumption that a student will attend the institution for the entire period in which federal assistance was awarded. When a student withdraws from all courses for any reason, including medical withdrawals, he/she may no longer be eligible for the full amount of Title IV funds that he/she was originally scheduled to receive. The return of funds is based upon the premise that students earn their financial aid in proportion to the amount of time in which they are enrolled. A pro-rated schedule is used to determine the amount of federal student aid funds he/she will have earned at the time of the withdrawal. Thus, a student who withdraws in the second week of classes has earned less of his/her financial aid than a student who withdraws in the seventh week.

Once 60% of the semester is completed, a student is considered to have earned all of his/her financial aid and will not be required to return any funds.

Federal law requires schools to calculate how much federal financial aid a student has earned if that student:

* completely withdraws, or
* stops attending before completing the semester, or
* does not complete all modules (courses which are not scheduled for the entire semester or payment period for which he/she has registered at the time those modules began.)

Based on this calculation, Rowan University students who receive federal financial aid and do not complete their classes during a semester or term could be responsible for repaying a portion of the aid they received. Students who do not begin attendance must repay all financial aid disbursed for the term.

Scholarships Available to Incoming Freshman
Rowan University rewards academic success through our scholarship program. Scholarships are awarded to qualified first-year students. Scholarships are renewable for an additional six semesters provided students maintain a 3.0 GPA and maintain continuous full-time enrollment. For further information contact the Admissions Office.

Rowan University Scholars Program
This is a merit-based scholarship program to reward recent high school graduates who have achieved academic distinction as indicated by high school percentile rank and SAT I (math + critical reading) score. Scholarships range from $2,000 to $10,900 depending upon student’s qualifications.

Doris V. Broome Scholarships
Offered to incoming freshmen with outstanding academic records (1,100 SAT I, class rank in top 10 percent). 3.0 GPA required for renewal. $1,000 yearly for four years.

William H. Myers Scholarships
Offered to incoming freshman students enrolled in the Educational Opportunity Program and having an outstanding academic record. $1,000 yearly for four years. 2.5 GPA required for renewal.

Louise MacDonald Scholarships
Offered to incoming freshman students enrolled in the Educational Opportunity Program and having an outstanding academic record. $1,000 yearly for four years. 2.5 GPA required for renewal.

Fischer-Reisig Scholarship
Offered to an incoming transfer student from Gloucester, Camden or Burlington County College who is a single parent. Education major is preferred. $5,000 per year. Maximum two years. 3.5 GPA required and must be maintained for renewal.

Bessie Maxwell Scholarship
Offered to incoming freshman student in the Educational Opportunity Program from East Orange or Newark, NJ. 3.0 required GPA and SATs over 1,000.

Alumni/Broome Scholarships
Offered to incoming freshmen with outstanding academic records (1,100 SAT I, class rank in top 10 percent). 3.0 GPA required for renewal. Scholarships range from $750 to $1,000 yearly for four years.

Rowan University Foundation Scholarships
Frances R. Lax Scholarships in Fine & Performing Arts
Awarded competitively to freshmen fine and performing arts majors with demonstrated talent and significant academic achievement. $1,000 yearly for four years. 3.0 GPA required for renewal.

William G. Rohrer Scholarships
Awarded competitively to incoming freshman and junior-level transfer business or accounting majors with significant academic achievement as well as demonstrated civic involvement and leadership skills. $2,000 yearly for four years for freshmen, $2,000 yearly for two years for transfers.

Transfer Trustee Scholarships
Awarded competitively to N.J. community college graduates with a 3.5 GPA or higher attending Rowan University full time. $2,000 yearly for two years.

Glassboro High School Scholars Program
Graduating Glassboro High School Seniors who match certain criteria are eligible to receive one of three annual scholarships in the GHSS program. As an added incentive, students meeting these criteria also qualify for the Rowan University Scholars Program. The combined scholarships are enough funds to cover all academic expenses such as tuition, fees, room and board, for a full-time undergraduate student who chooses to live on campus. For more information see: www.rowan.edu/admissions_applications

SCHOLARSHIPS FOR CONTINUING STUDENTS
The University Scholarship Committee awards scholarships to Rowan University Students on the basis of academic excellence, financial need, and participation in on-campus and off-campus activities. The Continuing Student Foundation Scholarship program is available at the beginning of December through mid-February every year. For further information visit, www.rowan.edu/provost/financialaid/scholarships.html

Other Programs of Assistance
Army Reserve Officers' Training Corps (ROTC)
Mr. Michael J. Newton & Mr. Leonard Wilson Senior Military Science instructors
ROTC House, 401 Mullica Hill Road
Rowan University
856.881.4516
newton@rowan.edu wilsonleo@rowan.edu

The primary purpose of Army ROTC is to develop leaders of character for the 21st century. Students enrolled in ROTC participate in a unique interactive program focused on leadership development with emphasis on self-discipline, integrity, confidence, and responsibility. Our intent is to help students improve themselves whether they decide to pursue a career as an officer in our Army or as a leader in the private sector. Students join the program without any obligation to the Army. Students only sign a contract to serve in the Army when they begin their junior year or when they receive an ROTC scholarship.

Our main objective is to commission the future officer leadership of the U. S. Army and motivate young people to be better citizens.

Our second objective is to teach leadership and management skills which will enhance a student’s future success in either a military or civilian career.

The Army ROTC scholarship program provides financial assistance for the education and training of highly qualified and motivated students who desire to be commissioned as officers in the Army after graduation from college. Scholarships pay full tuition and fees at Rowan University. Students also receive a book allowance and a monthly stipend. Army scholarships offer an excellent incentive to join the ROTC program. For more information, see Army R.O.T.C. under the scholarship section.

Leadership Training and ROTC Activities
Some of the Leadership Training events and ROTC activities involved are:
Leadership Labs/Field Training Exercises Hands-on training in a field environment performing events such as: Rappelling, Obstacle Course, Weapons familiarization, Land Navigation and Battle Drills.
Physical Fitness Training We conduct physical fitness sessions throughout the school week to help keep you physically, mentally and emotionally fit.
Ranger Challenge A highly competitive team specializing in military skills and physical fitness. This team competes in a yearly competition against other university ROTC programs in the tri-state area.
Color Guard Take pride in Army tradition by participating in the Color Guard. We support various events such as parades, football homecomings and Commencement/Convocation Ceremonies.

Rowan Army ROTC is located at the ROTC House at 401 Mullica Hill Road (intersection of Route 322 and Bowe Boulevard). Contact information is at the top this section and you can visit: www.goarmy.com. Note: All Military
Science Courses (MILS) are listed under the Interdisciplinary heading in the Courses Description section of this catalog.

**Air Force Reserve Officers’ Training Corps (ROTC)**
Air Force ROTC offers one-, two-, and three-year scholarships on a competitive basis to qualified applicants. All scholarships cover tuition, lab fees, and books, plus a tax-free monthly stipend. All members of the POC, regardless of scholarship status, receive the tax-free monthly stipend. (see Interdisciplinary Studies for details of the program.)

For information regarding Veterans Benefits contact the Office of Veterans Affairs. You can also visit their website, http://www.rowan.edu/studentaffairs/asc/veterans/

**Veterans Affairs Office**
Veterans Coordinator: Beth Sosnoski
Phone Number: (856)256-4233
Fax Number: (856)256-4438
veteranaffairsoffice@rowan.edu

**International Center**
Timothy Torre
Director
Robinson Hall, First Floor
856.256.4105
torre@rowan.edu

The International Center actively supports international initiatives at Rowan University. The Center is committed to: providing support services to students, faculty and professionals engaged in international education and research; coordinating and presenting internationally focused programs to the Rowan community; building partnerships with foreign institutions to provide global learning experiences. The Center is responsible for the support of International Students and Scholars at Rowan and remains available to support international students through walk-in advising, academic and cultural workshops, enrichment activities, and social programming. Our diverse international student population also serves as an important peer network for their fellow students and contributes to our mission of sustaining an environment that fosters personal growth, cultural understanding, and academic success. The staff of the IC understands the unique needs of international students and is committed to providing excellent service throughout their time at Rowan University. As part of its Study Abroad program, the Center offers Rowan students the opportunity to study in such areas and countries as Australia, Africa, Asia, Europe, and Central and South America. Students work with academic advisors in their major to select a course of study that enables them to complete one semester, one year, a summer session, or a faculty-led program abroad. All credits count toward a Rowan degree, and all scholarships and financial aid are applicable.

For more information visit the International Center's website at: www.rowan.edu/international_center

**Rowan Select**
The Rowan Select program is designed to provide structured support as you enter Rowan University and to give you a jump-start on your college career. The program will prepare you to join the Rowan family through assisting you with the transition to college. While Rowan Select students did not meet Rowan’s criteria for regular admission in the fall term, they are fully-admitted students who begin with a special course in the summer and receive excellent support and guidance throughout the year. Potential students are chosen for this program based on a specific academic profile and individual potential, as well as unique qualities that make them an asset to Rowan University. We think that you and Rowan are a good match and are pleased to offer you admission to this program.

**Rowan Seminar**
Office of Academic Transition Programs
Savitz Hall, Third Floor

Rory McElwee
Assistant Vice President for Retention
856.256.4500 x3776
mcelwee@rowan.edu

Sean Hendricks
Assistant Director
856.256.5655
hendrickss@rowan.edu
Rowan Seminar is designed to help our first year students make a smooth academic transition to university life. Rowan Seminar courses are special sections of courses taken by first-year students (either General Education or major-specific courses), many of which are popular with new college students and are reserved for first-year students only. Most major programs have designated specific courses for first year students. Student receive regular credit for successful completion of these courses.

Extensive research on the first-year experience provides compelling evidence that the high school learning environment is not always sufficient preparation for college-level learning. Our own research at Rowan suggests that although entering first-year students believe they know what will be expected of them academically, many benefit from the careful attention given to issues of transition from high school to college. Also, our research strongly suggests that participation increases retention rates and four-year graduation rates among students who take Rowan Seminar courses.

Rowan Seminar courses are designed to introduce students to the academic skills needed to succeed at Rowan and to college level expectations of the learning process. What distinguishes a RS course from any other section of the same course is how the course material is used to help each student understand academic expectations that accompany the college level learning process. Rowan Seminar courses are designated in a student's schedule with an RS after the title.

Within the subject context of the course, the professor will introduce every student to the following skills, values, and expectations at the college level:

- Strengthen writing and critical thinking skills through their application to specific course content
- Nurture library research skills within a course context
- Reinforce the value of cooperative learning
- Strengthen the academic skills needed for college

Rowan Seminar professors are typically experienced full-time faculty. They are chosen for their teaching skills, thorough knowledge of their subject, familiarity with university policies and procedures, and their interest in helping new students succeed in college. With the reduced class size, students have a greater opportunity to interact with their professor who is available to the student as a mentor and as a guide.

Freshmen are assigned to Rowan Seminar sections in the fall semester. Any student unable to enroll in a section in the fall will have the opportunity to take a Rowan Seminar section offered in the spring. Rowan students have their first three semesters to complete their Rowan Seminar requirement.

For more information about Rowan Seminar or if you have any questions about the program, please contact the Office of Academic Transition Programs. Please also visit the Rowan Seminar website at: www.rowan.edu/atp

**Student Diversity/Achieving the Dream Scholars Program**

James M. Uzcategui-Gaymon  
Assistant Vice President  
Savitz Hall, Second Floor  
856.256.2430  
gaymon@rowan.edu

Achieving the Dream is a comprehensive program that supports students of all backgrounds in an effort to foster a diverse student population on the campus of Rowan University. It includes supporting students during the Admissions process, supplemental academic advising and individual student support.

**Testing Services**

Rachel Budmen  
Coordinator  
Savitz Hall, Third Floor  
856.256.4263  
testingservices@rowan.edu

Testing Services is a division of Strategic Enrollment Management and offers the following services: testing accommodations for students registered with Disability Resources, Basic Skills placement testing and progress tracking, CLEP examinations, the Miller Analogies Test, and proctoring for long-distance learners.

**Tutoring Center**

Bonnie Wilson  
Coordinator  
Savitz Hall Third Floor  
856.256.4462  
tutoringcenter@rowan.edu

Tutoring is available free of charge to all Rowan University students. The Tutoring Center provides small-group or drop-in tutoring in most subject areas. Students may request academic assistance on a one time basis or may be scheduled for regular
assistance on a weekly basis throughout the semester. The purpose of tutoring is to complement classroom instruction, not replace it. Workshops on learning strategies and effective study techniques are presented at various times throughout the academic year.

**University Advising Center (UAC)**

Carol Eigenbrot  
Coordinator  
Savitz Hall, Third Floor  
856.256.4459  
eigenbrotc@rowan.edu

The University Advising Center is a collaborative, learning-centered environment committed to engaging students in the development and implementation of meaningful educational goals, informed academic planning, and major selection consistent with their personal values, interests, and abilities. The University Advising Center serves select undergraduate students in the College of Science & Math the College of Humanities & Social Sciences, which includes the Exploratory Studies (undeclared) population, and the College of Communication & Creative Arts. Additionally, the UAC assists students throughout the University who are seeking to transition from one college or major to another and provides transfer student services including Welcome Wednesdays New Transfer Information Sessions, and the email hotline transferhelp@rowan.edu, to which any transfer student can send questions which will be answered promptly by a Rowan administrator.

**University Scheduling**

Steven C. Farney Sr.  
Director of Operations  
James Hall  
856.256.5189  
scheduling@rowan.edu

Comprised of two dozen faculty, staff and administrators who represent a cross-section of the University, the University Scheduling Committee identifies ways to improve the University’s master schedule. The goal is to better maximize University resources and to be more mindful of student and faculty time constraints. The Office of University Scheduling oversees all academic and non-academic scheduling for the University, as recommended by the University Scheduling Committee, and is housed in James Hall. The office processes all on campus room requests, including those for classrooms, meeting space and conference rooms, and rental requests from off-campus organizations. Please email scheduling@rowan.edu to contact the department.

**Web Services**

Jen Bell  
Director  
Memorial Hall, First Floor  
856.256.4410  
webservices@rowan.edu

When Rowan first went online sometime in 1992, not everyone immediately embraced the idea of this new-fangled invention. Yes, it was by all means revolutionary, but that was more so for the subset of society who sported pocket protectors. Today, while being a geek is very much socially acceptable, you no longer have to officially be one to carry gadgets around in your pockets that host more processing power than the computers on the Apollo 11 mission that landed men on the moon.

In 2013, Web Services is mission control.

**Our primary objective?**  
To support the enrollment management functions of the institution via the web.

**How do we do this?**  
By providing you with all the tools you need for a successful website.

While you may not think your department’s website has a direct impact on the recruitment and retention functions of the University, it has a significant influence. All of our websites together present a comprehensive reflection of who we are, as a campus and a community. This is why we develop and maintain the interfaces and dynamic web systems that power Rowan’s 250+ official websites, and manage the University’s digital identity via all web-based interfaces and social media outlets.
Division of Information Resources and Technology

Memorial Hall
856.256.4410
irt@rowan.edu

For any service please use the following contact info:
Support Desk
856.256.4400
support@rowan.edu

The Division of Information Resources and Technology provides university-wide leadership for all Information Resources governance processes, information technology infrastructure, business applications, data governance, and information management services.

The Division of IRT is committed to providing students, faculty, and staff with information and technology resources and services that support and enhance academic and administrative programs. These programs promote student-centeredness, excellence in instructional practice, quality management, and efficiency and integrity of operations. This division consists of the Office of Institutional Effectiveness, Research, and Planning Academic Technology; Clinical Systems and Project Management; Enterprise Information Services; Network and System Services; and the Office of Information Security.

Office of the Vice President and Chief Information Officer
Mira Lalovic-Hand
Vice President and Chief Information Officer
Memorial Hall
856.256.5120
lalovic-hand@rowan.edu

The Office of the Vice President and Chief Information Officer oversees the day-to-day operations and provides overall leadership for the entire technology division at Rowan University.

Academic Technology
Neil Toporski
Director
Memorial Hall
856.256.4594
toporski@rowan.edu

Academic Technology (AT) supports all client-side academic technologies across all academic venues at Rowan. AT is responsible for supporting TEC (Technology Enhanced) classrooms; computers in Rowan computing venues; student printing; Blackboard learning management system; multimedia such as simulations, audio, video, and streaming technologies; and hybrid and flipped instruction.

Clinical Systems and Project Management
David Allen Gabriele
Director
Memorial Hall
856.256.4405
gabriele@rowan.edu

Clinical Systems and Project Management provides system support of the practice management and electronic medical record in support of the Faculty Practice Plan at Rowan School of Osteopathic Medicine (RowanSOM). Clinical Solutions services include consultation, design, implementation, maintenance, support and new initiatives.

Enterprise Information Systems
James Andrew Henderson
Assistant Vice President
Memorial Hall
856.256.4108
henderson@rowan.edu

The EIS department is responsible for the technical support necessary to implement and maintain the University's Enterprise Resource Planning (ERP) system and for developing or implementing and maintaining adjunct and ancillary
systems required outside of the ERP system to meet additional institutional information needs necessary to carry out the mission of Rowan.

**Information Security Office**

John Angelastro  
Chief Information Security Officer  
Memorial Hall  
856.256.4498  
angelastroj@rowan.edu  

The Information Security Office provides security governance and oversight of Rowan’s Information Resources and Technology, develops and implements new information security policies, procedures, and standards as needed while overseeing the protection of Rowan’s student, faculty, employee, and patient data. ISO also ensures compliance with Rowan’s policies, state and federal regulation and reporting requirements.

**Institutional Effectiveness, Research, and Planning**

Jacqueline Ring  
Assistant Vice President  
Memorial Hall  
856.256.5153  
ring@rowan.edu  

The Office of Institutional Effectiveness, Research & Planning (IERP) is Rowan University’s official source for all data and statistics used for assessment, state and federal reporting, and more. IERP also oversees the implementation and management of Rowan’s Enterprise Data Warehouse (EDW) and Operational Data Store (ODS).

**Network and System Services**

Bruce Klein  
Director  
Memorial Hall  
856.256.4480  
klein@rowan.edu  

Network and System Services (NSS) is responsible for all computer networking on-campus including file and print servers, web servers, Internet connection, email systems and all computer/printer repair, installation and support.

**Undergraduate Programs**

Undergraduate studies at Rowan University are housed in seven colleges: Business, Communication and Creative Arts, Education, Engineering, Performing Arts, Humanities & Social Sciences, and Science & Mathematics. To receive a baccalaureate degree, the student must successfully complete a minimum of 120 semester hours of credit. Within this number must be included the general education and Rowan experience requirements plus the requirements of the academic major. Requirements for the major will vary from program to program, and some programs exceed 120 hours.

Students who have completed an Associate of Arts or Associate of Science degree at a New Jersey community college will receive at least 60 hours of transferable credit towards the appropriate Bachelor of Arts or Bachelor of Science Program. With regard to General Education, it is assumed that transfer students will have met all lower division General Education requirements expected of students having completed the first two years of a four-year program. Those students who do not complete an approved transfer program or who transfer from other accredited institutions will have their previous work evaluated on a course-by-course basis and will be required to correct any deficiencies that exist in the requirements of their major.

**Academic Major Programs**

Academic major programs listed with general education requirements in the colleges of Business, Communication & Creative Arts, Engineering, Humanities & Social Sciences, Sciences & Mathematics and Performing Arts fulfill baccalaureate degree requirements but not teacher certification requirements. Additional program information, including the fulfillment of certification requirements, may be secured by contacting either the office of the dean of the College of Education or the University Advising Center (UAC).

**Second Major, Minor, or Concentration**

Students may choose to complete a second major, minor, or concentration when graduating from a bachelor’s degree program at Rowan University. To qualify for this additional designation on the transcript, a student must satisfy all course work for the second major, minor, or concentration concurrent with the conferral of the degree. Students must follow
departmental policy regarding required course work to be completed at Rowan University for the minor, concentration, or second major. Academic policies governing the award of degrees for dual majors, concurrent, and successive degree programs are listed in the Rowan Handbook: www.rowan.edu/student_affairs When no departmental policy exists, the student must complete at least two-thirds (2/3) of the required course work at Rowan University.

**General Education at Rowan University**

A well-rounded education is a goal in itself and there are important aspects of this education that the university as a whole wants to emphasize. These aspects include a thorough grounding in communication and an exposure to university level science, mathematics, social and behavioral science, and the humanities.

Broadly speaking, the general education program will:

1. Develop students’ abilities to speak and write effectively, think clearly and critically
2. Develop students’ abilities to use computational, quantitative, and problem solving skills, as well as scientific thinking and modes of inquiry
3. Increase students' understanding of the complexity of issues in humanities, arts, social and behavioral sciences and the practice of free inquiry in their analyses and examination of values.
4. Provide opportunities for students to explore specializations, concentrations, minors, or disciplines outside of their own in greater depth.

As one of the fundamental principles of a general education curriculum is to experience a variety of disciplines, students are required to take courses from five areas: Communication; Science and Mathematics; Social and Behavioral Sciences; History, Humanities, and Language; and Non-Program Courses.

At Rowan University, the minimum number of hours required for a four-year degree is 120 semester hours, and all students are required to earn a combined total of 42 semester hours of General Education and Rowan Experience courses. (The Rowan Experience Requirements are described in detail in the next section.) Different degree programs vary in the number of hours required for Free Electives and the Major. Students must plan their program of study in consultation with an advisor in order to meet all the requirements of a specific major program.

Within General Education, there are specific areas of study or discipline groups. All of the semester hour requirements listed below are considered minimum requirements. Specific requirements may vary by degree type (Bachelor of Arts, Bachelor of Science) and/or by major program of study.

**General Education Requirements by Area of Study**

Following are the minimum numbers of credits required in each of five areas of study within General Education. In addition to meeting the minimum credit hours in each bank, students must earn a COMBINED TOTAL of 42 credits of General Education courses and Rowan Experience courses.

<table>
<thead>
<tr>
<th>General Education Areas</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>6</td>
</tr>
<tr>
<td>Science and Mathematics</td>
<td>7</td>
</tr>
<tr>
<td>Social and Behavioral Sciences</td>
<td>6</td>
</tr>
<tr>
<td>History, Humanities and Language</td>
<td>6</td>
</tr>
<tr>
<td>Non-Program Courses</td>
<td>6</td>
</tr>
</tbody>
</table>

These are minimum requirements for each area of study or discipline group. Specific major programs may expand the requirements within any of these categories in order to meet program and learning outcome objectives as well as meeting the minimum 120 semester hour requirement for a four-year degree. Specific General Education courses may be required for individual majors if they serve as prerequisites for required courses within that major.

**General Education courses must be selected so that the following requirements are satisfied:**

1. All students must take College Composition I (3 s.h.) or Intensive College Composition I (4 s.h.) as well as College Composition II (3 s.h.).
2. The minimum of 6 s.h. of Communication is fulfilled by College Composition I and II. For all other banks requiring 6 or more semester hours, students must take courses from at least two different disciplines within the bank.
3. All students must take at least one course from the list of mathematics courses listed under Science and Mathematics.
4. All students must take at least one approved course that includes an in-class laboratory experience (LAB) under Science and Mathematics. Transfer courses must include the in-class lab experience. Students may not test out of the lab experience.
5. All courses at the university can be used in the Non-Program Bank, as long as they are not courses in the major program of the student.

**Students Transferring from a New Jersey Community College to Rowan University**

Students who have completed an Associate of Arts or Associate of Science degree at a New Jersey community college will receive at least 60 hours of transferrable credit towards the appropriate Bachelor of Arts or Bachelor of Science Program.
With regard to General Education, it is assumed that transfer students will have met all lower division General Education requirements expected of students having completed the first two years of a four-year program. In most situations, students will receive transfer credit for a combination of General Education Courses, Rowan Experience Courses, Free Electives, and Major Requirements totalling at least 60 semester hours of credit or approximately one-half of a basic four-year degree. Exceptions to this assumption will occur when students have failed to complete required course work at the community college that is required for entrance into a required Rowan University course. Coordination between the student and advisor at the community college is necessary in planning for the transfer to Rowan University. Specific program requirements are available on the Rowan University home page.

For students transferring to the university without completing an Associate of Arts or Associate of Science degree, it is expected that credits taken at a New Jersey community college that are applicable to an Associate of Arts or and Associate of Science degree, up to a maximum of 60–64 semester hours will be transferable to the basic four-year degree program at Rowan University. Transfer students must meet the specific graduation requirements of the Rowan University degree program to which they seek to transfer. It is expected that through careful planning, the transfer student will be able to meet these requirements within their two years of study at the community college and the following two years of study at Rowan University.

**General Education Requirements**

General Education is designed to fulfill the aim of a liberal education. It is intended to provide the breadth of knowledge and balance of judgment befitting a college graduate, regardless of major. At Rowan University, General Education is divided into five areas of study with specific goals. The educational goals of the five areas of study are:

**Communication Bank Goals**
1. Students will develop the ability to write a structured, well-reasoned, ordered and grammatically correct document appropriate to the intended audience.
2. Students will develop the ability to research and properly reference the work of others.

**Science and Mathematics Bank Goals**
1. Students will demonstrate an ability to identify and apply fundamental concepts in science and math.
2. Students will demonstrate an ability to collect, interpret and verify lab data.
3. Students will demonstrate an ability to analyze and manipulate data, and to access and organize information.

**History, Humanities, and Languages Bank Goals**
1. Students will demonstrate an understanding of major concepts, theories, and methods in at least two areas of history, humanities, culture, or world languages.
2. Students will develop an understanding of systems of thought and language.

**Social and Behavioral Sciences Bank Goals**
1. Students will demonstrate an understanding of major concepts, theories, and methods in at least two areas of the social and behavioral sciences.
2. Students will demonstrate an understanding of the development of human society as it relates to culture, geography, and language in the context of an emerging interdependent, global community.
3. Students will demonstrate an ability to apply basic methodologies used in the measurement of social and behavioral sciences.

**Non-Program Electives Bank Goals**
1. Students will develop a deeper understanding of at least one area outside of the major program of study as a means of creating a broader, customized, and complete program of general education.
2. Students will choose courses to enhance the major degree program and better prepare them to meet future professional and life objectives.

Some general courses offered at Rowan University fulfill one or more of the Rowan Experience Requirements, or are applicable to the Honors Concentration, or meet a combination of General Education, Rowan Experience, and Honors Concentration Requirements. Such courses are signified as follows:

- **(ACE)** Artistic and Creative Experience
- **(H)** Honors Concentration Course
- **(LIT)** Broad-based literature course
- **(LAB)** In-class laboratory experience
- **(PS)** Public Speaking
- **(M/G)** Multicultural/Global
- **(RS)** Rowan Seminar
- **(WI)** Writing Intensive

The General Education course listing can be viewed in the Approved General Education Courses section of the university catalog.
Non-Traditional-Format Undergraduate Offerings

Rowan also offers a few of its undergraduate degree programs in non-traditional modes of delivery (online, off-site, hybrid, accelerated, etc.) through the College of Graduate & Continuing Education (CGCE). For a list of available programs and related details, please visit www.rowan.edu/cgce/programs

Note: Admission to all traditional-format undergraduate programs at Rowan University is coordinated by the main Admissions Office (admissions@rowan.edu).

Admission to the non-traditional-format undergraduate programs at Rowan University is coordinated by the CGCE Admissions Office cgceadmissions@rowan.edu or www.rowan.edu/cgce

The Rowan Experience

Rowan Experience Requirements  All students must take courses that define the unique aspects of a Rowan University degree and are described as the Rowan Experience. The Rowan Experience consists of courses that require a demonstration of specific skills or provide specific kinds of experiences that the university deems significant for all graduates. All students must complete a course or series of courses with the following six Rowan Experience designations during their four-year education:

1. Artistic and Creative Experience (ACE)
2. Literature (LIT)
3. Multicultural/Global (M/G)
4. Public Speaking (PS)
5. Rowan Seminar (RS). Rowan Seminars are to be taken by all FRESHMEN. This requirement is waived for transfer students entering with sophomore, junior or senior standing.
6. Writing Intensive (WI). Writing Intensive courses MUST be taken at Rowan, and College Composition II or its equivalent must be completed prior to enrolling in a WI course.

Many courses are designated as ACE, LIT, M/G, PS, WI, and RS, including many General Education courses and many courses taken only by students within their designated major. Courses may also carry more than one designation so that one course may meet two or more Rowan Experience requirements as well as General Education or major requirements.

As noted in the previous section, all students must take a minimum of 42 credits of General Education and Rowan Experience courses. The purpose of this requirement is to ensure a broad-based education. Consequently, M/G, LIT, ACE, PS, WI and RS courses that are taken within the major program of study DO NOT COUNT towards this minimum total of 42 credits. Note, too, that General Education and Rowan Experience course requirements vary depending on the specific degree program, so students should plan their program of study in consultation with their academic advisors.

The specific goals of the Rowan Experience Requirements are to:

1. Help first-year students make a smooth academic transition to the university community, serious scholarship and the life of the mind (RS).
2. Develop the ability to give oral presentations on a variety of subjects that are well reasoned, ordered, correct, and appropriate for the intended audience (PS).
3. Have students explore the diverse ways in which human beings have confronted the perennial questions of human existence through various imaginative and discursive literary works (LIT).
4. Develop students' knowledge of the multi-faceted culture in which we live, contemporary social and cultural milieu, and the global implications of an increasingly interdependent and multicultural world (M/G).
5. Develop the ability to create and/or critically evaluate works of art through experiential courses designed to expose students to the plastic and performing arts (ACE).

The Rowan Experience course listing can be viewed in the Approved Rowan Experience Courses section of this catalog.

Graduate and Post-Baccalaureate Programs

All post-baccalaureate and graduate-level (including doctoral) programs offered at Rowan University are administered by the College of Graduate & Continuing Education (CGCE) and housed across the academic colleges: Business, Communication and Creative Arts, Cooper Medical School, Education, Engineering, Graduate Schools of Biological Sciences, Humanities & Social Sciences, Performing Arts, School of Biomedical Sciences, School of Osteopathic Medicine, and Science & Mathematics.

The role of the College of Graduate & Continuing Education is to provide programmatic leadership, coordination and administrative support for quality post-baccalaureate and graduate-level programs at Rowan University consistent with national, state and regional educational needs. Led by the Dean and professional staff of CGCE, the Graduate Council, and the academic program advisors and faculty, the post-bac and graduate experiences are integral components of the overall mission of the University.
Graduate-level programs at Rowan provide those who already possess Bachelor’s or Master’s degrees an opportunity to continue to advance their education. Available offerings at the graduate level include but are not limited to the following degree and non-degree options:

- Doctor of Education Leadership (Ed.D.), Educational Specialist degree (Ed.S.), Master of Business Administration (M.B.A.), Master of Arts (M.A.), Master of Science (M.S.), Master of Engineering Management (M.E.M.), Master of Music (M.M.), Master of Science in Teaching (M.S.T.), Master of Education (M.Ed.)
- 4+1 (dual degree Bachelor/Master) programs
- Certificates of Advanced Graduate Study (CAGS/post Master)
- Certificates of Graduate Study, (COGS/post Bachelor)

Post-Baccalaureate (post-bac) programs are non-degree, undergraduate programs that enable Bachelor degree holders to obtain professional certifications in a variety of areas. The requirements and curricula of the post-baccalaureate programs are often similar to the requirements and curricula listed for the corresponding undergraduate degree programs and may also have the same national accreditation and/or state approval (in the case of College of Education certifications) as the corresponding undergraduate degree programs.

Available offerings at the post-bac (undergraduate) level include but are not limited to the following certification and non-degree options:

- Post-baccalaureate (post-bac/post Bachelor) programs in applied behavior analysis and cartography and GIS
- State certifications/endorsement programs (also post Bachelor) for school nursing, principals, supervisors, teacher of students with disabilities, driver education, learning disabilities teacher consultant (LDTC), bilingual/bicultural education, English as a Second Language

Credit requirements for each program vary greatly according to level, degree and professional standards. Many programs will accept transfer credit from accredited institutions. For a full list of programs offered through CGCE, please visit www.rowancgce.com/programs

One of the major goals of CGCE is to serve the adult non-traditional student population by offering programs and courses that meet the needs of individuals with busy personal and professional life-styles. Consequently, several programs are available in an accelerated format, online, hybrid or face-to-face formats at a number of selected off-campus locations. Such information is provided in the CGCE Catalog under the "Programs Offered" section for each academic college.

Note: Admission to all post-baccalaureate and graduate programs at Rowan University (both traditional-format and non-traditional-format), as well as all non-traditional-format undergraduate programs, is coordinated by CGCE Admissions (cgceadmissions@rowan.edu or www.rowancgce.com/admissions)

Tuition and Fees

The following is a summary of fees charged at Rowan. Tuition and other charges are subject to change at any time in accordance with policies established by the board of trustees of Rowan University. The fees do not include the cost of textbooks and personal expenses. Fees at Rowan for academic year 2014-15 are:

**Admissions Application (Graduate and Undergraduate):** $65

**Meal Plans:**
- 14 Meal Plan with $200 Dining Dollars + $400 Boro Bucks $3,920
- 10 Meal Plan with $200 Dining Dollars + $400 Boro Bucks $3,500
- 7 Meal Plan with $200 Dining Dollars + $400 Boro Bucks $2,780
- All Access Meal Plan $200 Dining Dollars + $200 Boro Bucks $4,200

**Freshman Acceptance Fee** (not refundable) $100

**Housing in Residence Hall** $7,206-$8,428

**Housing Deposit** $200

**Housing in Edgewood Park Apartments** $7,542
- **Triad Apartments** $7,542
- **Town House** $9,680
- **Rowan Blvd.** $9,728
- **Whitney Center** $9,822

**Identification Card** $10

**ID Card Replacement** $25

**Deferred Payment Plan Fee** $30

**Late Payment Fee** $25-50

**Late Registration Fee** $75
Returned Check Charge  $25-50
Parking Fee  $125/commuter $205/resident
Student Accident and Health Insurance (subj. to change)  $1,502-undergraduate $2,152-graduate
University Fee
(p-t)  $144.90/credit-undergraduate $144.90/credit-graduate
(f-t flat rate)  $1,770.00/semester
Educational Field Experience  $50/semester
Transcript  $5/20
Library Fines
Per Day  $0.10
Maximum (pre-collections)  $3
Maximum (post-collections)  $6

Library fines are imposed on users who are delinquent in the return of library materials. The cost of repair or replacement of lost or damaged materials will be charged to users. Current fines and other charges are posted on the Library Services website. Library and other services may be denied if fine obligations are not met.

### Tuition

Tuition for each semester will be charged on a per credit hour basis for part-time students and flat rate for full-time students.

**Graduate tuition rates (2014-15) are:**

- New Jersey resident  $648/credit
- Non-resident  $648/credit

**Undergraduate tuition rates (2014-15) are:**

- New Jersey resident (p-t)  $348/credit
- (f-t flat rate)  $4,538.00
- Non-resident (p-t)  $656/credit
- (f-t flat rate)  $8,515.00

### Expenses

The Business Office is responsible for all billing of students and for the collection of payments. A statement of expenses for the fall semester will be mailed electronically by July 6. A similar statement will be mailed electronically by November 30 for the spring semester.

All charges must be paid in full each semester on or before the date stipulated in the statement of expenses given each student. Students who do not pay their bills will be withdrawn from classes in accordance with the University policy on outstanding financial obligations. Credit may be extended to students engaged in negotiations concerning state scholarships, loans or grants. Questions regarding university expenses should be discussed with personnel in the Bursar's Office (256-4150).

Checks in payment of all charges should be made payable to Rowan University. Payment may also be made with Master Charge, Visa, Discover or American Express. Detailed information on use of these credit cards is available to students prior to the beginning of each semester. All students qualify for the deferred payment program. Information on the deferred payment plan is available on the "Instructions for Term Invoice" page on-line at the Rowan Self Service web site at http://www.rowan.edu/selfservice. Tuition and fees, regulated by Rowan University, are subject to change without notice to individual students.

### Summary of Expenses

Estimated fees and expenses for New Jersey residents living on-campus or commuting are summarized below.

<table>
<thead>
<tr>
<th></th>
<th>Residents</th>
<th>Commuters</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuition (30 credits per year is average load)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>University Fee</td>
<td>$3,540</td>
<td>$3,540</td>
</tr>
<tr>
<td>Room and Board</td>
<td>$11,126</td>
<td></td>
</tr>
<tr>
<td><strong>Total expenses</strong></td>
<td>$23,742</td>
<td>$12,616</td>
</tr>
<tr>
<td>Based on the following:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Residence Room (double)</td>
<td>$7,206</td>
<td></td>
</tr>
<tr>
<td>14 Meal Plan</td>
<td>$3,920</td>
<td></td>
</tr>
</tbody>
</table>

Tuition and fees for full-time out-of-state students is $20,570/year based on an average 30 credit hours a year. Tuition and other charges are subject to change at any time in accordance with policies established by Rowan University.
Food Services
Students living in a residence hall must purchase an unlimited, 14, 10 or 7 Meal Plan. Students living in apartments or off-campus also may purchase a Meal Plan, but it is not required.

Residence Hall
Residence halls and apartments are available to Rowan University students. Please visit www.rowan.edu/rluh for more information.

University Fee
This fee is charged to all students at $151.00 per credit hour with a maximum of $1,770 per semester. The purpose of this fee is to help defray the costs of an array of varied but integral services and projects that directly affect our student’s everyday. Some of these important areas are briefly described below:

- The fee helps to offset placement service costs in order to assist all of our students as they proceed from the academic world to the job market.
- It assists in the overall support of our Student Health Center which offers treatment to currently enrolled students for acute illnesses, urgent care situations and certain health promotion needs. Registered nurses are available.
- The funds received provide much needed support for expansion and upgrade of our computer labs and academic programs.
- The fee helps defray the cost of debt service on recently constructed or renovated buildings as well as the operation and maintenance cost of newly constructed buildings and partially finances the operations of the Recreation Center and Student Center.

Late Payment Fee
Students on Deferred Payment Plan who fail to pay bills by the date due will be charged a non-refundable late payment fee between $25 and $50, depending on when payment is made.

Late Registration Fee
Students who fail to register at the time designated will be charged a non-refundable $75 fee.

Parking
Commuting students may park on campus after purchasing a Rowan University parking decal. Decals are $125. Students with a commuter decal may park in a designated white lined space in Lots A, B, C, D, M, R and Y.

Freshmen living on campus are NOT permitted to purchase a decal or have a vehicle on campus. Sophomores, juniors and seniors residing on campus may purchase a decal and will be permitted to park only in designated resident lots.

Vehicles parking without a decal or in other than a designated space will be subject to a fine and having the vehicle towed at owner’s expense. Handicapped spaces are provided for individuals whose physical handicaps require their use. A handicapped parking decal from Rowan must be displayed. This rule is vigorously enforced.

Returned Check Charge
A charge of $25-50 will be made for each check that is given to the University if it is returned by the bank for any reason.

Identification Cards
The University requires that all matriculated students carry an official identification card at all times. This card is needed for library use, student activities, registration, cashing checks, recreation center and security purposes. The initial charge for an ID card is $10, and a $25 charge is made for each replacement of a lost card.

Required Pre-matriculation Immunization and Medical Records
As a condition of admission and continued enrollment, each student is required to provide evidence of immunization against measles, mumps, and rubella (N.J.S.A. 18A:61D-1). Students are also required to have vaccination against Hepatitis B (Series of 3 vaccines). Any student living in campus housing is required to first have vaccination against meningitis (Menactra®). Students are also required to submit a complete health record to the student health center. Failure to submit these requirements will result in an immunization hold that will prevent the student from living in campus housing or registering for courses. Additional information on these requirements is available from the Student Health Center website at www.rowan.edu/health

Student Insurance
New Jersey State law requires that all matriculated, fulltime students have health insurance coverage. To that end, all matriculated fulltime students will be automatically charged a Student Health Insurance fee ($1,502/undergraduate $2,152/graduate fee 2014-15). To waive this fee, the student must complete a waiver identifying their current insurance coverage. This waiver must be completed on-line at the Rowan Self-Service web site at http://www.rowan.edu/selfservice prior to the start of the student’s first semester and every Fall semester thereafter.
More information can be obtained about Student Health Insurance from the Health Center Website at www.rowan.edu/health. It is important to note that this insurance coverage is a limited plan. It is important for student and parents to review the coverage offered in the plan. Coverage for part-time students, spouses and children is available for a fee paid directly to the insurance company. See the Health Center website for more information.

All students who compete in intercollegiate sports programs are covered while participating by a separate policy purchased by the university. Premiums for insurance are subject to change.

**Educational Field Experience**
All teacher preparation students pay a Educational Field Experience fee of $50/semester which covers the normal expenses incurred in the program, including a payment to the cooperating teacher. Students will be billed for this fee as part of their normal University term invoice.

**Transcript Fee**
A transcript is provided to each student upon graduation. Additional transcripts are available through the Registrar’s Office for $5/20 each.

**Refund Policy**
Refunds will be prepared for all students who officially withdrawal from the University. Requests for official withdrawal must be made through the Dean of Students Office. This procedure assures that students will receive the proper refund for tuition, fees, room and board charges.

**Approved Refund Schedule**
Tuition, and University fee only.

**Part-Time students:** Refunds will be processed only for drops occurring on or before the last day of Drop/Add Registration. No refund processed for Withdrawals beyond that date.

**Full-Time students:** Refunds will be processed only for students who officially withdrawals from all of their courses on or before the last day of Drop/Add Registration.

**Financial Aid students:** Refunds of Federal Financial Aid are processed in accordance with federal guidelines:

- Withdrawal before end of Add/Drop: 100% Registration
- Withdrawal after Add/Drop: None

**Room and Board**
Refunds for residence halls and for meal plans will be calculated immediately following the date of the student’s official withdrawal. Refunds for room shall be pro-rated on a weekly basis until the end of the fifth week of the semester, at which point there will be no refund for the remaining weeks of the term. Refunds for Board shall be pro-rated on a weekly basis until the end of the third week of the semester, at which point there will be no refund for the remaining weeks of the term.

**Outstanding Financial Obligations**
The University may deny a student graduation, readmission, registration, or records because of outstanding financial obligations to the University. This action may be taken in cases where reasonable notice of a debt and the consequences of nonpayment have been given to the student. If a student does not meet his/her outstanding obligations by the established deadlines under the policy, the student will automatically be denied registration for the following semester, in addition to losing all other university services. Denial for future semesters will also be continued until such time as the obligation is met.

The student will have the right to a hearing in cases of dispute concerning an obligation. The request for a hearing must be submitted in writing by the student to the appropriate department or office head in which the obligation exists. If it becomes necessary, any appeal of a decision resulting from such a hearing must be arranged through the collection manager, Business Office, Savitz Hall or Dean of Students, Savitz Hall.

The University will have the right to withhold the degree and all records, including certification, transcripts, placement services, etc., pending satisfactory financial arrangements.

A complete text of the Outstanding Financial Obligations Policy may also be obtained from the collection manager, the business office, or the Dean of Students in Savitz Hall.

**Policies and Procedures**
The following selected policies and procedures govern conditions that affect student enrollment. For more information on these and other policies that may relate to academic affairs, students are encouraged to consult with the dean of students, the registrar, the University Advising Services and the Student Government Association.

**Admissions and Transfer**
www.rowan.edu/admission_policies

- Basic Skills Course Requirements
- Credit by Examination for Life Experience External Examination
- Credit by Examination for Life Experience Internal Examination
• Challenge Examination
• Articulation with Area Community Colleges
• Credit Transfer from Other Institutions
• GPA Forgiveness

**Matriculation Status**
www.rowan.edu/matric_policies
• Matriculated/Non-Matriculated Status
• Non-Degree Graduate Student Policy
• Distinguishing Undergraduate and Graduate Education Experience in Student Record
• Leave of Absence, Stop Out, or Withdrawal from the University

**Advising and Programs of Study**
www.rowan.edu/advising_policies
• Curricular Definitions
• Academic Advising Policy
• Declaring or Changing a Major
• Second Baccalaureate Degree
• Undeclared Major/Exploratory Studies

**Registration and Payment**
www.rowan.edu/regis_policies
• Registration Procedures
• Repeating a Course
• Undergraduate Senior Privilege
• Closed Course Sections
• Audit Policy
• Extended and Final Registration
• Change of Registration - Late Drop/Add & Withdrawal Forms
• Financial Obligations
• Deferred Payment Plan

**Final Exams and Grades**
www.rowan.edu/exams_policies
• Conflicts in Examination Periods During Finals Week
• Viewing Final Exams and Papers
• Grade Reporting Policy
• Grading System
• Change of Grade Policy
• “D” Grades
• Grade Dispute Policy
• Family Educational Rights and Privacy Act (FERPA) of 1974

**Academic Status**
www.rowan.edu/status_policies
• Undergraduate Academic Standing (Academic Good Standing, Probation, Dismissal, and Restriction)
• Admission Continuation and Dismissal from Major
• Leave of Absence, Stop Out, or Withdrawal from the University
• GPA Forgiveness

**Academic Honors**
www.rowan.edu/honors_policies
• Academic Honors & Dean’s List Policy
• Marching with Honors

Student Conduct
www.rowan.edu/conduct_policies
• Student Code of Conduct
• Attendance Policy - Faculty & Students Responsibilities
• Classroom Behavior Policy
• Free Speech and Peaceful Assembly Policy
• Mobile Electronic Devices Policy
• Academic Integrity Policy
• Research Papers – The Term Paper Law
• Academic Integrity Process Overview (Flow Chart)
• Report of an Academic Integrity Violation Form (RAIV)
• Academic Integrity Policy, Flowchart & Violation Form
• Student Complaint Procedure

Classroom Policies
www.rowan.edu/classroom_policies
• Syllabus Policy
• Academic Integrity Policy
• Academic Integrity Process Overview (Flow Chart)
• Report of an Academic Integrity Violation Form (RAIV)
• Academic Integrity Policy, Flowchart & Violation Form
• Attendance Policy - Faculty & Students Responsibilities
• Classroom Behavior Policy
• Mobile Electronic Devices Policy
• Turnitin.com Policy

Academic Integrity
www.rowan.edu/AcademicIntegrity_policies
• Academic Integrity Policy, Flowchart & Violation Form
• Resources
• Studies

Graduation and Degrees
www.rowan.edu/grad_policies
• Graduation Requirements
• Second Baccalaureate Degree
• Marching with Honors
• Official Transcripts
• Awarding of Posthumous Degrees

Relevant Legislation
www.rowan.edu/legis_policies
• Statewide Transfer Agreement – Official Lampitt Law
• Family Educational Rights and Privacy Act (FERPA) of 1974
• Research Papers – The Term Paper Law
Interdisciplinary Studies Concentrations

Rowan University offers a variety of interdisciplinary studies, in addition to the various majors within academic departments and concentrations and specializations that relate specifically to these majors. These interdisciplinary studies include concentrations, and courses that transcend the discipline of a single academic department. Interdisciplinary studies are generally co-sponsored by at least two academic departments or are taught by faculty from a number of departments and colleges.

AFRICAN AMERICAN STUDIES CONCENTRATION
James Coaxum, III
Coordinator
3087 Herman James Hall
856.256.4779
coaxum@rowan.edu

Required Credits

The African American Studies Concentration consists of interdisciplinary curricular offerings that engage faculty and students in critical analysis, reflection and transformational thinking about African Americans within the framework of the multicultural diversity and global connectedness of American society. The African American Studies Program dates back to the late 1960s when the Civil Rights Movement across the nation and the Southern New Jersey region led to the establishment of the King Scholar Program (The Educational Opportunity Fund or EOF Program) in the Fall of 1968. Following the offering of the first Black History course by the History Department in 1969 in response to Black student demands, a slow but steady growth in African American and African curricular offerings over the course of the next two decades culminated in the formal establishment of the African American Studies concentration in 1989.

Program Requirements

To complete the 18 semester hours of course work required for the concentration, students should take six semester hours of requirements and an additional twelve semester hours of electives selected from the related elective courses listed below. Overall, the 18 semester hours of course work completed for the concentration must include offerings from at least three academic departments. Students interested in pursuing the concentration are encouraged to sign up in the RU Career Management Center and to contact the coordinator for further information and advisement.

Core Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFST11.104</td>
<td>Introduction to Africana Studies</td>
</tr>
<tr>
<td>ENGL02.216</td>
<td>African/American Literature through Harlem Renaissance</td>
</tr>
<tr>
<td>or ENGL02.316</td>
<td>African/Americcan Literature Since Harlem Renaissance</td>
</tr>
<tr>
<td>or HIST05.377</td>
<td>Afro-American History Since 1865</td>
</tr>
</tbody>
</table>

Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFST11.304</td>
<td>Africana Social/Political Thought</td>
</tr>
<tr>
<td>AFST11.310</td>
<td>Service Learning Seminar in Africana Studies</td>
</tr>
<tr>
<td>ENGL02.116</td>
<td>Readings in Non-West Lit</td>
</tr>
<tr>
<td>ENGL02.200</td>
<td>Women in Literature</td>
</tr>
<tr>
<td>ENGL02.216</td>
<td>African/Amererican Literature through Harlem Renaissance</td>
</tr>
<tr>
<td>ENGL02.316</td>
<td>African/Amererican Literature Since Harlem Renaissance</td>
</tr>
<tr>
<td>ENGL02.217</td>
<td>U.S. Literature of Latin/Hisp Peoples</td>
</tr>
<tr>
<td>ANTH02.202</td>
<td>Introduction to Cultural Anthropology</td>
</tr>
<tr>
<td>GEOG16.140</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>HIST05.376</td>
<td>African American History to 1865</td>
</tr>
<tr>
<td>HIST05.394</td>
<td>Sub-Saharan Africa to 1800</td>
</tr>
<tr>
<td>HIST05.397</td>
<td>Sub-Saharan Africa Since 1800</td>
</tr>
<tr>
<td>HIST05.441</td>
<td>Imperialism/Colonialism</td>
</tr>
<tr>
<td>HIST05.442</td>
<td>Civil War and Reconstruction</td>
</tr>
<tr>
<td>HIST05.443</td>
<td>Comparative Race Relations</td>
</tr>
<tr>
<td>HIST05.445</td>
<td>History of Feminism</td>
</tr>
<tr>
<td>HIST05.448</td>
<td>Women in American History</td>
</tr>
<tr>
<td>LAWE05.320</td>
<td>Problems of World Justice</td>
</tr>
<tr>
<td>LAWE05.346</td>
<td>Women, Crime, &amp; Criminal Justice</td>
</tr>
<tr>
<td>LAWE05.401</td>
<td>Law and Human Rights</td>
</tr>
<tr>
<td>LAWE05.505</td>
<td>Minorities, Crime &amp; Justice</td>
</tr>
<tr>
<td>MUSG06.115</td>
<td>Growth &amp; Development of Jazz</td>
</tr>
<tr>
<td>MUSG06.220</td>
<td>The Music of African Americans</td>
</tr>
<tr>
<td>POSC07.323</td>
<td>Politics of Race/Poverty/Welfare</td>
</tr>
<tr>
<td>POSC07.340</td>
<td>Civil Rights and Civil Liberties</td>
</tr>
<tr>
<td>POSC07.324</td>
<td>Black Americans &amp; American Politics</td>
</tr>
</tbody>
</table>
Rowan University students are eligible to participate in the Air Force Reserve Officers’ Training Corps (AFROTC) through a cross-enrollment agreement with St. Joseph’s University. All aerospace studies courses will be held on the St. Joseph’s campus. The AFROTC program enables a college student to earn a commission as an Air Force officer while concurrently satisfying requirements for his or her baccalaureate degree.

The program of aerospace studies at St. Joseph’s University offers two-year, and four-year curricula leading to a commission as a second lieutenant in the Air Force. In the four-year curriculum, a student takes the General Military Course (GMC) during the freshman and sophomore years, attends a four-week summer training program, and then takes the Professional Officer Course (POC) in the junior and senior years. A student is under no contractual obligation to the Air Force until entering the POC or accepting an Air Force scholarship.

The subject matter of the freshman and sophomore years is developed from a historical perspective and focuses on the scope, structure, and history of military power, with an emphasis on the development of air power. During the junior and senior years, the curriculum concentrates on the concepts and practices of leadership and management, and the role of national security forces in contemporary American society.

In addition to the academic portion of the curricula, each student participates in a leadership laboratory for two hours each week, during which the day-to-day skills and working environment of the Air Force are discussed and explained. The leadership lab utilizes a student organization designed for the practice of leadership and management techniques.

Air Force ROTC offers one-, two-, and three-year scholarships on a competitive basis to qualified applicants. All scholarships cover tuition, lab fees, and books, plus a tax-free monthly stipend. All members of the POC, regardless of scholarship status, receive the tax-free monthly stipend.

For further information on the cross-enrollment program, scholarships, and career opportunities, contact: Air Force ROTC at 610-660-3190 or rotc@sju.edu.

ARMY RESERVE OFFICERS’ TRAINING CORPS (ROTC)

Mr. Michael J. Newton & Mr. Leonard Wilson
Sr. Military Science Instructors
ROTC House, 401 Mullica Hill Road
Rowan University
856.881.4316
newton@rowan.edu
wilsonle0@rowan.edu

The primary purpose of Army ROTC is to develop leaders of character for the 21st century. Students enrolled in ROTC participate in a unique interactive program focused on leadership development with emphasis on self-discipline, integrity, confidence, and responsibility. Our intent is to help students improve themselves whether they decide to pursue a career as an officer in our Army or as a leader in the private sector. Students join the program without any obligation to the Army. Students only sign a contract to serve in the Army when they begin their junior year or when they receive an ROTC scholarship.

Our main objective is to commission the future officer leadership of the U. S. Army and motivate young people to be better citizens.

Our second objective is to teach leadership and management skills which will enhance a student’s future success in either a military or civilian career.
The Army ROTC scholarship program provides financial assistance for the education and training of highly qualified and motivated students who desire to be commissioned as officers in the Army after graduation from college. Scholarships pay full tuition and fees at Rowan University. Students also receive a book allowance and a monthly stipend. Army scholarships offer an excellent incentive to join the ROTC program. For more information, see Army R.O.T.C. under the scholarship section.

**Leadership Training and ROTC Activities** Some of the Leadership Training events and ROTC activities involved are:

- **Leadership Labs/Field Training Exercises** Hands-on training in a field environment performing events such as: Rappelling, Obstacle Course, Weapons familiarization, Land Navigation and Battle Drills. **Physical Fitness Training** We conduct physical fitness sessions throughout the school week to help keep you physically, mentally and emotionally fit. **Ranger Challenge** A highly competitive team specializing in military skills and physical fitness. This team competes in a yearly competition against other university ROTC programs in the tri-state area. **Color Guard** Take pride in Army tradition by participating in the Color Guard. We support various events such as parades, football homecomings and Commencement/Convocation Ceremonies. Rowan Army ROTC is located at the ROTC House at 401 Mullica Hill Road (intersection of Route 322 and Bowe Boulevard). **Contact information is at the top this section and you can visit:** [http://www.goarmy.com](http://www.goarmy.com). *Note: All Military Science Courses (MILS) are listed under the Interdisciplinary heading in the Courses Description section of this catalog.*

### ASIAN STUDIES CONCENTRATION

**Q. Edward Wang**
Coordinator
Bunce Hall
856.256.4500 ext. 3990
wangq@rowan.edu

The Asian Studies concentration is an interdisciplinary program available to students of all majors. This program is designed to increase the students’ understanding of Asian culture and to promote a sophisticated cross-cultural appreciation of our expanding global community. This program is of value to students who are interested in developing careers in business, education, communication and engineering. Those who fulfill a total of eighteen credits of Required Courses, Core Courses and Electives will be awarded a certificate in Asian Studies upon completion of their degree.

#### Program Requirements

The Concentration requirements are as follows:

**Required Courses (3)**

- ENGL02.112: Readings in Asian Literature
- INTR01.136: Gateway to Asia (RS)
- POSC07.350: Introduction to Asian Political Systems

**Core Courses (9 s.h.)**

- ARHS03.231: Surveying Asian Art
- CHIN07.101: Elementary Chinese I
- CHIN07.102: Elementary Chinese II
- CHIN07.201: Intermediate Chinese I
- CHIN07.211: Intermediate Chinese II
- GEOP16.343: Geography of Asia
- HIST05.355: Modern China
- HIST05.351: Modern Japan
- HIST05.408: Chinese Cultural History
- JAPA08.101: Elementary Japanese I
- JAPA08.102: Elementary Japanese II
- JAPA08.201: Intermediate Japanese I
- JAPA08.211: Intermediate Japanese II
- PHIL09.330: Asian Thought
- PHRE11.330: Introduction to Daoism (M/G)
- PHRE11.310: Introduction to Buddhism
- REL10.230: Religions of Asia
- SOC08.391: Ethnic Minorities in China

**Elective Courses (6 s.h.)**

- ANTH02.202: Intro to Cultural Anthropology
- ANTH02.350: Comparative Cultures
- ANTH02.420: Culture and Personality
- ECON04.307: Economics of Developing Nations
- ECON04.310: International Economics
- ECON04.320: Contemporary Economic Systems
- ENGL02.116: Readings in Non-Western Literature
The Ethics Concentration is a multi-departmental program designed to complement and enhance a student’s major program, as well as to prepare students for graduate studies and professional careers. The Concentration is open to all Rowan undergraduate and graduate students.

Nearly all professions now have codes of ethics, and many businesses require employees to adhere to various standards of conduct. The concentration is flexible enough to suit our students’ diverse majors and career goals. For example, a student who majors in business and completes the Ethics Concentration might serve as a company’s ethics officer; a student who majors in nursing or biology and completes the concentration could run a hospital ethics committee; a student who majors in political science and studies ethics would be well qualified to pursue graduate work in public policy or law.

The Ethics Concentration contains a core designed to sharpen your critical thinking and reasoning skills in the context of moral reflection. These core courses stress ethical theories and application of ethical theories.

**Program Requirements**

**Program Requirements including:**  
18 s.h.

- **PHIL09.250** Introduction to Ethics  
- or **PHIL09.251** Introduction to Ethics - WI  
- **PHIL09.392** Contemporary Moral Problems  
- or **PHIL09.393** Contemporary Moral Problems - WI

Two of the following courses:

- **PHIL09.328** Philosophy and Gender  
- **PHIL09.240** Philosophy and Society  
- **PHIL09.341** Biomedical Ethics  
- **PHIL09.322** Business Ethics  
- **PHIL09.330** Asian Thought  
- **PHRE11.350** Spirituality & Healing  
- **REL10.200** Religions of the World  
- **REL10.210** Religion in America  
- **ENST94.301** Environmental Ethics

An Honors, Rowan Seminar, or Philosophy and Religion course approved by the program advisor.

Two of the following courses:

- Any course from the previous list.
- Approved service learning activity (up to 6 s.h.)
- Approved Internship (up to 6 s.h.)
- Choice of courses from interdisciplinary bank, available at: [www.rowan.edu/ethics/courses.html](http://www.rowan.edu/ethics/courses.html)

**Portfolio** (not for credit) The portfolio will be used to evaluate a student’s personal growth and academic progress in the study of Ethics. A portfolio provides a comprehensive record of experiences, achievements, and demonstration of...
INTERNATIONAL STUDIES CONCENTRATION
Corinne Blake
Coordinator
Bunce Hall
blake@rowan.edu

The International Studies program is an interdisciplinary concentration that prepares students for careers in an increasingly interdependent world. Students are introduced to a wide range of economic, political and environmental issues and they develop expertise in the culture, history and languages of other parts of the globe.

Students are required to complete 2 courses from a bank of core courses, and 4 others from any of the area studies (African, Asian, Eastern European and Russian, Latin American and Iberian, Middle Eastern and Western European) for a total of 18 credit hours. These 4 courses can be selected from the list of core courses as well. There may be other courses, not listed here, that are applicable with the approval of the Coordinator.

International Studies may be pursued in conjunction with major and minor programs, or as General Education, Multicultural/Global, Literature, Writing Intensive, or Rowan Seminar requirements. Study of a foreign language is recommended. Students can also pursue Study Abroad in partial fulfillment of the International Studies Concentration.

Program Overview
The International Studies program is an interdisciplinary concentration that prepares students for careers in an increasingly interdependent world. Students are introduced to a wide range of economic, political and environmental issues and they develop expertise in the culture, history and languages of other parts of the world. International Studies may be pursued in conjunction with major and minor programs.

Requirements
Core Courses: 6 hours from the core bank below.
Area Studies: 9 hours. Credits earned to fulfill the Area Studies requirement must come from at least two departments. Six hours of Area Studies credits must be at the 300 lvl or higher. These may be selected form either core or area banks.
2nd Semester Foreign Language (or CLEP equivalent). Neither the first or second semester of this language may count as an Area Studies course. Any additional foreign language credit in this language (at a higher level) or another language (at any level) may fill Area Studies requirements.

Additional Notes
Students who complete an approved study abroad semester will have their 300/400 lvl Area Studies requirement reduced by three hours. Students will also receive credits from such study abroad semesters as determined by their home department and the International Center. As long as the study abroad semesters are approved by the home department and the university, there is no upper limit on the number of credits a student may apply to International Studies.

Internships in international trade, government, communications, business management and marketing can also provide students with valuable skills and work experience. For a listing of companies involved in such areas in the southern New Jersey and Philadelphia area, contact your local Chamber of Commerce. For information about international internship opportunities, you can also contact your professors, your department, or the International Center.

Both the Core Course bank and the Area Studies bank are located below. Please contact Dr. Glenn A. Odom (odomg@rowan.edu Bunce 333) with any questions.

International Studies Core

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FIN04.435</td>
<td>International Financial Management</td>
</tr>
<tr>
<td>ECON04.307</td>
<td>Economic Development (Multicultural/Global)</td>
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<tr>
<td>ECON04.310</td>
<td>Global Economics</td>
</tr>
<tr>
<td>ECON04.320</td>
<td>Contemporary Economic Systems (M/G)</td>
</tr>
<tr>
<td>ENGL02.116</td>
<td>Readings in Non-Western Literature (M/G)(LIT)(GenEd)</td>
</tr>
<tr>
<td>ANTH02.202</td>
<td>Cultural Anthropology (M/G) (GenEd)</td>
</tr>
<tr>
<td>ANTH02.250</td>
<td>Comparative Cultures (M/G)(GenEd)</td>
</tr>
<tr>
<td>ANTH02.250</td>
<td>Introduction to Anthropological Linguistics</td>
</tr>
<tr>
<td>GEOG16.110</td>
<td>Cultural Geography (M/G)(GenEd)</td>
</tr>
<tr>
<td>GEOG16.140</td>
<td>World Regional Geography (M/G)(GenEd)</td>
</tr>
<tr>
<td>GEOG16.301</td>
<td>Economic Geography (M/G)</td>
</tr>
<tr>
<td>GEOG16.303</td>
<td>Political Geography (M/G)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Name</td>
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<tr>
<td>-------------</td>
<td>-------------</td>
</tr>
<tr>
<td>HIST05.101</td>
<td>Western Civilization since 1600 (GenEd)</td>
</tr>
<tr>
<td>HIST05.120</td>
<td>World History Since 1500 (Gen Ed)</td>
</tr>
<tr>
<td>HIST05.413</td>
<td>Comparative Race Relations: South Africa, Brazil and the US</td>
</tr>
<tr>
<td>HIST05.441</td>
<td>Imperialism and Colonialism</td>
</tr>
<tr>
<td>LAWJ05.175</td>
<td>Comparative and International Criminal Justice</td>
</tr>
<tr>
<td>LAWJ05.330</td>
<td>Problems in World Justice</td>
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<tr>
<td>LAWJ05.401</td>
<td>Law and Human Rights</td>
</tr>
<tr>
<td>MKT09.379</td>
<td>International Marketing</td>
</tr>
<tr>
<td>MGT06.330</td>
<td>Managing International Business</td>
</tr>
<tr>
<td>MUSG06.447</td>
<td>Music in World Cultures - Asia and Oceana (M/G)(GenEd)</td>
</tr>
<tr>
<td>MUSG06.448</td>
<td>Music in World Cultures – Africa, India, Near &amp; Middle East</td>
</tr>
<tr>
<td>REL10.200</td>
<td>Religions of the World (M/G)(GenEd)</td>
</tr>
<tr>
<td>POSC07.230</td>
<td>Comparative Political Systems (M/G)(GenEd)</td>
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<tr>
<td>POSC07.321</td>
<td>Contemporary World Problems (M/G)(GenEd)</td>
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<td>POSC07.320</td>
<td>International Relations</td>
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<tr>
<td>SOC15.322</td>
<td>Sociology of Population Sociology</td>
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<tr>
<td>SOC08.327</td>
<td>Comparative Education in a Sociological Perspective</td>
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<tr>
<td>THD07.440</td>
<td>Contemporary World Theatre (WI)(LIT)(GenEd)</td>
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<tr>
<td>THD08.146</td>
<td>World Dance Forms (M/G)(GenEd)</td>
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<tr>
<td>THD08.151</td>
<td>Ethnic and Character Dance</td>
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### African Studies

<table>
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<tr>
<th>Course Code</th>
<th>Course Name</th>
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<tbody>
<tr>
<td>ZULU</td>
<td>All Zulu Classes</td>
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<tr>
<td>ARAB</td>
<td>All Arabic Classes</td>
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<tr>
<td>HIST05.394</td>
<td>Sub-Saharan Africa to 1800</td>
</tr>
<tr>
<td>HIST05.397</td>
<td>Sub-Saharan Africa since 1800</td>
</tr>
<tr>
<td>GEOG16.345</td>
<td>Geography of Africa</td>
</tr>
<tr>
<td>HIST05.417</td>
<td>Women in Islam</td>
</tr>
<tr>
<td>HIST05.437</td>
<td>Twentieth Century African Nationalism</td>
</tr>
<tr>
<td>HIST05.413</td>
<td>Comparative Race Relations</td>
</tr>
<tr>
<td>AFST11.104</td>
<td>Introduction to Africana Studies</td>
</tr>
<tr>
<td>AFST11.304</td>
<td>Africana Social Thought</td>
</tr>
<tr>
<td>THD08.311</td>
<td>African Influences in American Dance (M/G)(GenEd)</td>
</tr>
<tr>
<td>THD07.301</td>
<td>African, African-American Theater: Intercultural Definitions</td>
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### Asian Studies

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>INTR01.136</td>
<td>Gateway to Asia (RS)</td>
</tr>
<tr>
<td>ARHS03.231</td>
<td>Survey of Asian Art</td>
</tr>
<tr>
<td>ARAB</td>
<td>All Arabic Classes</td>
</tr>
<tr>
<td>CHIN</td>
<td>All Chinese Classes</td>
</tr>
<tr>
<td>ENGL02.112</td>
<td>Readings in Asian Literature (M/G)(LIT)(GenEd)</td>
</tr>
<tr>
<td>GEOG16.343</td>
<td>Geography of Asia (M/G)</td>
</tr>
<tr>
<td>HIST05.356</td>
<td>Late Imperial China</td>
</tr>
<tr>
<td>HIST05.408</td>
<td>Chinese Cultural History</td>
</tr>
<tr>
<td>HIST05.355</td>
<td>Modern China</td>
</tr>
<tr>
<td>HIST05.438</td>
<td>History of the Vietnam War</td>
</tr>
<tr>
<td>HIST05.351</td>
<td>Modern Japan</td>
</tr>
<tr>
<td>HIST05.446</td>
<td>Race, Identity, and History in East Asia</td>
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<tr>
<td>Jap</td>
<td>All Japanese Courses</td>
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<td>POSC07.350</td>
<td>Introduction to Asian Political Systems</td>
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<tr>
<td>PHRE11.310</td>
<td>Introduction to Buddhism</td>
</tr>
<tr>
<td>REL10.230</td>
<td>Religions of Asia</td>
</tr>
<tr>
<td>PHRE11.330</td>
<td>Introduction to Daoism</td>
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<td>PHIL09.330</td>
<td>Asian Thought (M/G)</td>
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### Eastern European and Russian Studies

<table>
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<tbody>
<tr>
<td>RUSS</td>
<td>All Russian Classes</td>
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<tr>
<td>GEOG16.346</td>
<td>Geography of the C.I.S. (former Soviet Union) (M/G)</td>
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<tr>
<td>HIST05.343</td>
<td>Russia to 1914</td>
</tr>
<tr>
<td>HIST05.344</td>
<td>Russia since 1914</td>
</tr>
<tr>
<td>POSC07.341</td>
<td>Politics of Russia, Eastern Europe and Eurasia</td>
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<tr>
<td>POSC07.351</td>
<td>Russian Foreign Policy</td>
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### Middle East Studies

<table>
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<tbody>
<tr>
<td>ARAB</td>
<td>All Arabic Courses</td>
</tr>
<tr>
<td>GEOG16.347</td>
<td>Geography of the Middle East (M/G)</td>
</tr>
<tr>
<td>HIST05.379</td>
<td>Ancient Egypt</td>
</tr>
<tr>
<td>HIST05.383</td>
<td>Islamic Civilizations</td>
</tr>
</tbody>
</table>
Scholarships, Internships and Career Opportunities Students with a strong academic background should consider applying for some of the scholarship programs that send graduating seniors abroad, especially the Fulbright Program and the Rotary Ambassadorial Scholarship Program. For more information about these scholarships visit the following website www.rowan.edu/internationalcenter or make an appointment with the International Studies coordinator in the International Center, located in Bunce 333.

Internships in international trade, government, communications, business management and marketing can also provide students with valuable skills and work experience. For a listing of companies involved in such areas in the southern New Jersey and Philadelphia area, contact your local Chamber of Commerce. For information about international internship opportunities, you can also contact your professors, your department, or the International Center.
LEADERSHIP STUDIES CONCENTRATION
James Coaxum, III
Education Leadership Department
3087 Herman James Hall
856.256.4779
coaum@rowan.edu

The undergraduate Concentration in Leadership Studies is an interdisciplinary effort, designed to address the needs of students, from various academic backgrounds, who wish to gain knowledge and experience in developing and practicing leadership skills. The concentration allows students to explore leadership inside and outside the classroom in addition to providing them with the opportunity to practice leadership within an organizational setting. The program focuses on the nature of leadership in a variety of settings and will help students prepare for leadership responsibility on campus, in the community, and in their professions. The concentration consists of 18 credit hours.

Program Information
Students must complete 18 credits hours to satisfy the Concentration in Leadership Studies. There are 9 credit hours in the Leadership Core; 3 credit hours in the Communication Core; and, 6 credit hours in the Interdisciplinary Core. Any student wishing to pursue a Concentration in Leadership Studies should contact the coordinator for further information and advisement.

Concentration Requirements
- Leadership Core: 9 credit hours
- Communication Core: 3 credit hours
- Interdisciplinary Core: 6 credit hours

Required Courses
Leadership Core
- EDSU28.100 Leadership Theory
- EDSU28.205 Leadership Seminar I
- EDSU28.305 Leadership Seminar II (capstone)
Leadership Communication Core
- CMS04.220 Interpersonal Communication
Interdisciplinary Core (Choose any two)
- MGT06.300 Organizational Behavior
- MGT06.304 Organizational Change and Development
- SOCo8.353 The Sociology of Complex Organizations
- SOCo8.230 Self and Society
- EDPA02.320 Public Administration
- PSYo8.310 Industrial/Organizational Psychology
- PSYo5.206 Social Psychology
- HLTH37.170 Stress Management

THOMAS N. BANTIVOGLIO HONORS PROGRAM
The Whitney Center
856.256.4643

The Thomas N. Bantivoglio Honors Concentration Program is an eight (8) course program open to Rowan students in all academic majors and colleges. As students participate in their disciplinary majors the Honors Program complements their growth towards career preparation and civic participation. Participation in the Bantivoglio Honors Program affords students a rich educational experience. At graduation ceremonies Bantivoglio Scholars receive special recognition, and their accomplishments are highlighted in the Commencement Program and on their diplomas.

The program emphasizes interdisciplinary learning, challenging scholastic work, enhanced classroom experiences, and participation in a learning community of intellectually curious and academically talented student colleagues and committed faculty. Classes are small so that students have the opportunity to engage in active learning with faculty who are committed to helping students develop their skills as scholars by working collaboratively with other Honors students in a wide range of academic fields. Students study topics such as global warming that are more effectively considered using perspectives from more than one discipline, and they are encouraged to find ways to integrate the content from their major fields of study with the content from other areas of study. The integration element of Honors classes enriches students' educational experiences by providing them with a way to make connections among ideas and disciplines. Enhanced educational experiences in the form of field trips, special speakers, independent study projects with individual professors, and participation at academic and professional conferences supplement the curricula.

Honors courses can be used to complete general education, Rowan Experience requirements, non-program and free electives, and/or specific degree requirements.

Other program benefits include the privilege of designated Honors-only housing in which interaction among the Honors students is encouraged and supported by extra-curricular activities. Honors students have priority registration, extended library borrowing privileges, financial assistance to study abroad, and paid research assistantships.
Applications for admission to the Bantivoglio Honors Program are reviewed by the Coordinator and the Honors Faculty Board Admissions Committee. Freshman admissions are based on standardized test scores, significant achievement in high school, participation in extra-curricular activities, essays, and a recommendation form. Rowan University students may apply to the concentration if they have a GPA of 3.45 or higher and can complete the concentration by their graduation.

Graduation with Honors Program recognition requires the completion of Honors coursework, a GPA of 3.33, and participation in extracurricular Honors activities and service projects. Four (4) Honors courses should be interdisciplinary and four (4) courses should be discipline-specific.

Students must continue to make progress toward completing the Honors Program within the normal time period to earn their major degree and must participate in Honors activities in order to remain in the program.

**URBAN STUDIES CONCENTRATION**

Demond Miller  
Advisor  
Robinson Hall  
856.256.4500 ext. 3517  
millerd@rowan.edu

New Jersey, the nation's most urban and most densely populated state, provides a compelling laboratory for the study of urbanism, urban places and associated problems such as sprawl, segregation, income disparity, poverty, crime, health and other issues. The Urban Studies concentration provides a format for students to engage in a systematic, yet wide ranging, study of urbanism on a local, national and global scale. The Urban Studies concentration is interdisciplinary and available to students from all majors.

Students are required to complete at least 21 credits (seven courses). Of these, at least 9 credits (three courses) must be taken in the Urban Studies Core. Among these Core courses, students must take courses in three of the following five subject areas: Economics, Geography, History, Political Science, and Sociology. An additional 12 credits (four courses) must be completed from either the remaining Urban Studies Core classes, from the related disciplinary clusters detailed below, or from the list of eligible elective courses following the cluster listing. Students may take up to, but not more than, three of these additional courses from a single Department. Thus, no student can count more than four courses from one department toward their Urban Studies Concentration (one of the Core classes and up to three additional courses). The concentration may be pursued in conjunction with a major program; it can also be integrated with general education requirements.

**Core Courses**

<table>
<thead>
<tr>
<th>Economics Courses</th>
<th>Geography Course</th>
<th>History Courses</th>
<th>Political Science</th>
<th>Sociology Courses</th>
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<tbody>
<tr>
<td>ECON04.360 Urban Economics</td>
<td>GEOG16.302 Urban Geography</td>
<td>HIST05.334 Urban History of the United States</td>
<td>TBA</td>
<td>SOC08.320 Urban Sociology</td>
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<tr>
<td>ECON04.210 Environmental Economics</td>
<td></td>
<td>HIST05.474 U.S. Labor History</td>
<td></td>
<td>SOC08.431 Social Psychology of City Life</td>
</tr>
</tbody>
</table>

**WOMEN'S AND GENDER STUDIES CONCENTRATION**

Ane Turner Johnson  
Coordinator  
James Hall  
856.256.4500 ext. 3818  
johnsona@rowan.edu

Women's and Gender Studies is a multi-disciplinary global concentration offering courses to students in all majors. Courses from the concentration may be used as electives or as part of the general education requirement and many Women's and Gender Studies courses fulfill the global/multicultural designation. The major objectives of the concentration are to increase knowledge about women and gender; to examine women's and men's roles across disciplines; to stimulate re-evaluation of the roles of women and men in society; to increase awareness of the status of women; and to value the contributions of women across cultures and time periods.

The successful completion of 18 semester hours, including the core course (Women and Gender in Perspective), is required. Students interested in taking a particular course in Women's and Gender Studies or pursuing a concentration are strongly encouraged to contact the Coordinator of the program for further information and advisement. Interested students can also contact the Registrar's Office to declare a concentration in Women's and Gender Studies. The Program in Women's and
Gender Studies posts a list of courses offered each semester, and courses are also listed in the Schedule of Courses under Women’s and Gender Studies.

Each student enrolled in the Women’s and Gender Studies Concentration is required to:

1. Take the core course, Women and Gender Perspective (INTR01.130);
2. Take fifteen (15) credits of approved Women’s and Gender Studies courses (ranked First and Second Tier), of which nine (9) credits must be from the First Tier.
3. Complete a portfolio that includes three papers from three different Women’s Studies courses, a one-page self-assessment essay, and a senior exit survey.

**Program Information**

**Required Core Course (3 s.h.)**
- INTR01.130 Women and Gender in Perspective

**First Tier (minimum of three courses [9 s.h.] required for Concentration)**
- ANTH02.322 Sex and Sex Roles in a Cross Cultural Perspective
- ARH03.230 Survey of Women Artists
- CMS04.310 Images of Gender in Popular Culture
- CMS04.320 Communicating Gender
- ECON04.225 Women in the Economy
- ENGL02.200 Women in Literature
- HIST05.417 Women in Islam
- HIST05.418 Women in Europe to 1700
- HIST05.419 Women in Modern Europe
- HIST05.422 Women in American History
- HIST05.425 History of Feminisms
- HIST05.429 Proseminar in History: Women in African History
- HIST05.455 Gender, Sexuality and History
- INTR01.200 Issues in Women's Health
- INTR01.430 Women, Sex, and Power: A Capstone Seminar in Women's Studies
- LAWJ05.346 Women, Crime and Criminal Justice
- PHIL09.328 Philosophy and Gender
- PHIL09.346 Feminist Ethics
- POSC07.311 Women and American Politics
- PSY01.200 Psychology of Women and Cultural Experience
- RTF03.272 Images of Women in Film
- SOC08.370 The Sociology of Women in Society
- SOC08.440 Selected Topics: Understanding Gender
- SOC08.493 Seminar on Gender Roles

**Second Tier Courses (maximum of two courses [6 s.h.] counted toward Concentration)**
- ENGL02.205 Adolescent Literature
- ENGL02.216 African American Literature Through Harlem Renaissance
- ENGL02.316 African American Literature Since Harlem Renaissance
- HIST05.408 Chinese Cultural History
- HIST05.429 Proseminar in History: History of Witchcraft
- INTR01.158 From Nancy Drew to Lara Croft: Historical and Critical Dimensions of the Female Detective Genre
- PHIL09.368 Philosophy of Science
- PHIL09.369 Philosophy of Science-WI
- PSY05.310 Psychology of Human Sexuality
- SOC08.220 The Sociology of the Family
- SOC08.399 Sociology of the Holocaust-WI
Rohrer College of Business

Mission
The College of Business of Rowan University empowers its students to compete and succeed responsibly in their careers.

- The Rohrer College of Business Faculty makes effective teaching that engages students in the learning process its highest priority supported by relevant scholarship and appropriate levels of service.
- Rowan University’s undergraduate business programs are grounded in liberal arts, focus on excellent business practices, and offer students opportunities for experience-based learning.
- Rowan University’s graduate business programs provide contemporary graduate business education to professionals of diverse fields and academic backgrounds, and accentuate knowledge and skills required for career advancement.
- In partnership with the Center for Innovation and Entrepreneurship, the Rohrer College of Business promotes entrepreneurship throughout the University and in the regional community.
- The Rohrer College of Business will be responsive to emerging developments in industry and business education.

Vision
To become a regionally prominent, nationally recognized, and globally engaged college of business creating a transformative learning experience.

Core Values
Excellence: faculty, staff, students, and alumni strive to distinguish themselves as valued quality contributors in their chosen fields/professions
Inquiry: nurture a culture of intellectual curiosity and critical thinking
Innovation: encourage creative and adaptive thinking
Respect: promote tolerance, collegiality, and ethical behavior
Social Responsibility: strive to generate sustainable value for business and society as a whole
General Education Requirements

The General Education component of the undergraduate curriculum for the degree programs in Business consists of 50-53 semester hours of General Education/Non-Program Elective Courses.

Moreover, no student will be permitted to enroll in certain upper division courses (level 300 and higher) offered by the Rohrer College of Business unless he/she has completed the prerequisite and (1) has been admitted to one of the Rohrer College of Business degree programs (2) is pursuing a Minor offered by the Rohrer College of Business; (3) is taking an upper division course as a recommended elective as part of a major program offered by another college at Rowan University; or (4) is taking an upper division course as a non-matriculated student for transfer to another academic institution. Transfer students should note that the degree programs in the Rohrer College of Business require at least 50% of the business credit hours be earned at Rowan University.

Accreditation

Rowan University's business programs are accredited by AACSB International (The Association to Advance Collegiate Schools of Business). To achieve this prestigious accreditation, the business programs successfully demonstrated a wide range of quality standards relating to faculty qualification, strategic management of resources, interactions of faculty and students, as well as a commitment to continuous improvement and achievement of learning goals in degree programs.

In addition, the College is just one of a few AACSB International schools in the nation to have the Management Information Systems Program also accredited by ABET, the Accreditation Board for Engineering and Technology, Inc.

Programs Offered

The Rohrer College of Business offers the following degree programs to serve its undergraduate students: a Bachelor of Science in Accounting, Entrepreneurship, Finance, Human Resource Management, Marketing, Management Information Systems, and Bachelor of Science in Business Administration with a Specialization in Supply Chain and Logistical Systems. The Rohrer College of Business also offers the following minors: Business Administration, Human Resource Management, Management Information Systems, and Marketing.

Departments

The Rohrer College of Business houses the departments of Accounting and Finance, Management and Entrepreneurship, and Marketing and Business Information Systems.

MINOR IN BUSINESS ADMINISTRATION

The Minor in Business Administration requires students to complete 12 credit hours in general education requirements. A student must achieve a minimum 2.5 GPA in these courses:

**Required Prerequisite Courses**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON04.101</td>
<td>Intro to Economics-A Macroeconomic Perspective</td>
</tr>
<tr>
<td>ECON04.102</td>
<td>Intro to Economics-A Microeconomic Perspective</td>
</tr>
<tr>
<td>STAT02.260</td>
<td>Statistics I</td>
</tr>
<tr>
<td>MATH03.125</td>
<td>Calculus Techniques &amp; Applications</td>
</tr>
<tr>
<td>or MATH01.130</td>
<td>Calculus I</td>
</tr>
</tbody>
</table>

**Business Courses**

The Minor in Business requires students to take 21 credit hours in business courses, all of which must be taken from the Rohrer College of Business core. Students must achieve a 2.5 GPA in all business courses. The lower division courses must be completed before upper division courses may be taken.

**Required courses**

**Lower Division**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT98.242</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>ACC03.210</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACC03.211</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>MKT09.200</td>
<td>Principles of Marketing</td>
</tr>
</tbody>
</table>

**Upper Division**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT06.300</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>or MGT06.309</td>
<td>Organizational Behavior - WI</td>
</tr>
<tr>
<td>FIN04.300</td>
<td>Principles of Finance</td>
</tr>
<tr>
<td>MIS02.234</td>
<td>Management Information Systems</td>
</tr>
</tbody>
</table>

Department of Accounting and Finance

George Romeo
Chair
Edgar F. Bunce Hall
856.256.4028
romeo@rowan.edu
The Accounting and Finance Department awards a B.S. in Accounting and a B.S. in Finance. Foundation courses offer students, regardless of their majors, a solid basis in accounting and financial theory. At the upper levels, courses are designed to qualify students for a wide range of careers in the accounting and the financial environment.

**BACHELOR OF SCIENCE IN ACCOUNTING**

The B.S. in Accounting requires the common core of the College of Business courses. Courses within the accounting major provide students with a broad understanding of accounting theory and practices, incorporating and infusing international and ethical issues. The program prepares students for a diversified range of career opportunities and meets the requirements to sit for the Certified Public Accountant (CPA) Examination, as well as the Certified Management Accountant (CMA) Examination and the Certified Internal Auditor (CIA) Examination.

Students working toward a B.S. in Accounting must achieve a 2.00 grade point average overall as well as a 2.50 grade point average to graduate.

**General Education**

All students must complete the University General Education requirements as described on page 31

**Rowan Experience**

All students must complete the Rowan Experience requirement as described on page 33

**Required Courses**  
*(may be included in General Education)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.110</td>
<td>Calculus I</td>
</tr>
<tr>
<td>or MATH03.125</td>
<td>Calculus Techniques and Applications</td>
</tr>
<tr>
<td>ECON04.101</td>
<td>Introduction to Economics: Macroeconomic Perspective</td>
</tr>
<tr>
<td>ECON04.102</td>
<td>Introduction to Economics: Microeconomic Perspective</td>
</tr>
<tr>
<td>STAT02.261</td>
<td>Statistics II</td>
</tr>
<tr>
<td>ACC03.210</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACC03.211</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>MGT98.242</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>MKT09.200</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>MGT06.305</td>
<td>Operations Management</td>
</tr>
<tr>
<td>FIN04.300</td>
<td>Principles of Finance</td>
</tr>
<tr>
<td>MGT06.300</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>MIS02.234</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>MGT06.402</td>
<td>Business Policy</td>
</tr>
<tr>
<td>ACC03.310</td>
<td>Intermediate Accounting I</td>
</tr>
<tr>
<td>ACC03.311</td>
<td>Intermediate Accounting II</td>
</tr>
<tr>
<td>ACC03.326</td>
<td>Cost Accounting</td>
</tr>
<tr>
<td>ACC03.410</td>
<td>Auditing</td>
</tr>
<tr>
<td>ACC03.416</td>
<td>Advanced Accounting</td>
</tr>
<tr>
<td>ACC03.428</td>
<td>Integrative Accounting Seminar</td>
</tr>
<tr>
<td>ACC03.432</td>
<td>Federal Taxation</td>
</tr>
<tr>
<td>ACC03.425</td>
<td>International Accounting</td>
</tr>
<tr>
<td>ACC03.320</td>
<td>Accounting Information Systems</td>
</tr>
</tbody>
</table>

**Business Electives**  
Choice of any course in the College of Business, or Business Ethics (PHIL09.322), excluding any internship other than Supervised Internship in Accounting (ACC03.300)  
6 s.h.

**Free Electives**  
7-9 s.h.

**Total Credits for the Program**  
121 s.h.

**BACHELOR OF SCIENCE IN FINANCE**

The B.S. in Finance requires the common core of College of Business courses. It provides students with a broad understanding of financial theory and institutions. The program prepares students for a variety of career opportunities within financial institutions, governmental agencies and private industry. These include financial analysis, cash management, credit analysis, pension and investment fund management, capital budgeting analysis, investment and commercial banking, and securities management.

Students working toward a B.S. in Finance must maintain a 2.00 grade point average overall as well as a 2.50 grade point average overall in the Business core and finance specialization.

**General Education**

All students must complete the University General Education requirements as described on page 31

**Rowan Experience**

All Students must complete the Rowan Experience requirements as described on page 33
**Required Courses**

*(may be included in General Education)*

- MATH01.130  Calculus I
- or MATH03.125  Calculus Techniques and Applications
- Approved General Education Computing Course

**Take one course from the list of approved General Education computing courses having a course identification number of CS0x.xxx**

- ECON04.101  Introduction to Economics: Macroeconomic Perspective
- ECON04.102  Introduction to Economics: Microeconomic Perspective
- STAT02.261  Statistics II
- MKT09.242  Principles of Marketing
- ACC03.210  Principles of Accounting I
- ACC03.211  Principles of Accounting II
- MGT06.242  Legal Environment of Business
- MGT06.300  Organizational Behavior
- MGT06.305  Operations Management
- FIN04.200  Principles of Finance
- MIS02.234  Management Information Systems
- MGT06.402  Business Policy
- ACC03.310  Intermediate Accounting I
- ACC03.312  Federal Taxation
- FIN04.422  Financial Management I
- FIN04.423  Financial Management II
- FIN04.431  Investments/Portfolio Analysis
- FIN04.433  Financial Institutions and Markets
- FIN04.435  International Financial Management

**Electives** E eclectic courses are generally offered only once an academic year. Select any (3) three of the following courses:

- ACC03.311  Intermediate Accounting II
- FIN04.424  Seminar in Finance
- FIN04.425  Financial Derivatives
- FIN04.330  Supervised Internship in Finance
- FIN04.327  Selected Topics in Finance
- FIN04.438  Portfolio Management
- FIN04.350  Personal Financial Planning

**Business Elective**

Choice of any level College of Business or Business Ethics (PHIL09.322), and excluding any internship other than Supervised Internship in Finance (FIN04.330)

**Free Electives** 7-8 s.h.

**Total Credits for the Program** 121 s.h.

---

**Department of Management and Entrepreneurship**

Dilip Mirchandani  
Chair  
Edgar F. Bunce Hall, Room 277  
856.256.4048  
mirchandani@rowan.edu

The Management and Entrepreneurship Department awards B.S. degrees in Management, Entrepreneurship, and Human Resource Management. These business programs provide students with a solid grounding in management theory and practice and with a strong professional foundation for a wide variety of organizational functions.

Students benefit from a curriculum that combines liberal arts requirements with intensive business theory and fundamentals, and hands-on learning opportunities.

**BACHELOR OF SCIENCE IN MANAGEMENT**

The B.S. in Management prepares students for meaningful entry level positions in management, and a foundation for future career growth. The program is designed to provide a strong foundation in both traditional and innovative management techniques, blending theory and practice by requiring classroom instruction, internships, and interaction with management practitioners. Students enrolled in the management program are expected to:

1. Learn important management concepts, skills and techniques focused on managing and supervising other workers
2. Think critically
3. Analyze and solve organizational problems
4. Improve their oral and written communication skills, and
5. Build their team skills

The program emphasizes the management of the new, diverse workforce; a concern for the increasing level of legal, and ethical and social responsibilities for workplace organizations; the importance of information technology in business decision making; understanding and being able to utilize essential quantitative tools for managerial decision-making in order to maintain a competitive advantage; and the globalization of the business environment.

Students working toward a B.S. in Management must maintain a 2.00 cumulative grade point average and a 2.50 grade point average in all business courses completed at Rowan.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirement as described on page 33

Required Courses for Management Degree (may be included in General Education) 27 s.h.

- MATH01.130 Calculus 1
- or MATH03.125 Calculus Techniques and Applications 3 s.h.
- STAT02.260 Statistics 1
- CS0x.xxx

**One course from the list of approved General Education computing courses having a course identification number of CS0x.xxx

ECON04.101 Introduction to Economics: Macroeconomic Perspective
ECON04.102 Introduction to Economics: Microeconomic Perspective
ACCO3.210 Principles of Accounting I
ACCO3.211 Principles of Accounting II
MGT98.242 Legal Environment of Business
MKT09.200 Principles of Marketing
MGT06.305 Operations Management
FIN04.300 Principles of Finance
MGT06.300 Organizational Behavior
or MGT06.309 Organizational Behavior(WI)
MIS02.234 Management Information Systems
MGT06.402 Business Policy
WA01.408 Writing as Managers (WI)
MGT06.310 Leadership and Supervision for Management
MGT06.311 Decision-Making Tools for Managers
MGT06.330 Managing International Business
MGT06.405 Business Management Simulation
MGT06.361 Supervised Internship
or MGT06.430 Business Field Experience

Choose 5 courses from the list below with at least one being from each of the three banks below: 15 s.h.

Quantitative Skills Bank
- MGT06.404 Quality Management
- MGT06.354 Managerial Data Analysis
- ENT06.426 New Venture Development
- ACC03.326 Cost Accounting
- FIN04.422 Financial Management I
- MKT09.384 Research Methods in Marketing-WI
- ECON04.302 Intermediate Microeconomics

Qualitative People Skills Bank
- MGT06.321 Managing Teams in Organizations
- MGT06.304 Organizational Change and Development
- HRM06.302 Management of Human Resources
- HRM06.420 Principles of Training and Training Management
- HRM06.315 Recruitment and Selection
- ENT06.327 Strategic Issues in Family Business
- MKT09.382 Sales Force Management
- MKT09.376 Consumer Behavior
- PHIL09.322 Business Ethics
- MGT06.361 Supervised Internship (additional 3.0 s.h.)

Organizational Task Skills Bank
- MKT09.378 Product, Price and New Venture Development
- ENT06.240 Entrepreneurship and Innovation
- ENT06.326 Entrepreneurship and Small Business Management
MKT09.360 Services Marketing
MGT06.312 Special Topics in Management I
MGT06.313 Special Topics in Management II
MKT09.350 Management of Advertising and Promotion
ENT06.342 Financing and Legal Aspects of Entrepreneurship
HRM98.337 Legal Aspects of Human Resource Management (WI)
MKT09.372 Retailing
MIS02.332 E-Business: IS Perspectives
HRM16.401 Labor/Employee Relations

Free Electives 6-8 s.h.
Total Credits for Program 120 s.h.

BACHELOR OF SCIENCE IN ENTREPRENEURSHIP
The theory and practice of entrepreneurship is becoming increasingly important for solving economic and social challenges. We develop the ability of our students to identify, determine feasibility and act upon entrepreneurial opportunities. Student learning is infused with an emphasis on innovation, entrepreneurial thinking and venture effectiveness using entrepreneurial problems, cases, and project-based learning. These exposures provide students with the foundation to initiate new enterprises, create socially responsible non-profit entities, extend family ventures or craft corporate extensions.

Students working toward a B.S. in Entrepreneurship must maintain a 2.00 grade point average overall and a 2.50 grade point average in all business courses taken. Students will also be enrolled in the course “Entrepreneurial Experiences” every semester where they should complete at least 10 points of specified experiences each semester. A passing grade in the Entrepreneurial Experiences course is required in the final semester to graduate (requiring a cumulative total of 100 points of experience). Special arrangements exist for transfer or change of major students. Please see your advisor.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirement as described on page 33

Required Courses
(may be included in General Education)

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.130</td>
</tr>
<tr>
<td>or MATH03.125</td>
</tr>
<tr>
<td>STAT02.260</td>
</tr>
<tr>
<td>CS0x.xxx</td>
</tr>
</tbody>
</table>

**One course from the list of approved General Education computing courses having a course identification number of CS0x.xxx

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON04.101</td>
</tr>
<tr>
<td>ECON04.102</td>
</tr>
<tr>
<td>MKT09.200</td>
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<tr>
<td>ACC03.210</td>
</tr>
<tr>
<td>ACC03.211</td>
</tr>
<tr>
<td>MKT09.242</td>
</tr>
<tr>
<td>MKT06.305</td>
</tr>
<tr>
<td>FIN04.300</td>
</tr>
<tr>
<td>MGT06.300</td>
</tr>
<tr>
<td>or MGT06.309</td>
</tr>
<tr>
<td>MGT06.402</td>
</tr>
<tr>
<td>ENT06.240</td>
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<tr>
<td>ENT06.330</td>
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<tr>
<td>or MKT09.379</td>
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<td>MKT09.384</td>
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<td>ENT06.426</td>
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<tr>
<td>ENT06.342</td>
</tr>
<tr>
<td>ENT06.415</td>
</tr>
<tr>
<td>ENT06.100</td>
</tr>
</tbody>
</table>

Select 6 s.h. from the following list:

<table>
<thead>
<tr>
<th>Course</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENT06.326</td>
</tr>
<tr>
<td>ENT06.327</td>
</tr>
<tr>
<td>ENT06.328</td>
</tr>
<tr>
<td>ENT06.346</td>
</tr>
<tr>
<td>MKT06.361</td>
</tr>
<tr>
<td>ENT06.344</td>
</tr>
</tbody>
</table>

ROWAN UNIVERSITY UNDERGRADUATE CATALOG 2014-2015
Select 9 s.h. from the following list:
- Any ENT course or
- MKT09.378 Product, Price, and New Venture Management
- MKT09.360 Services Marketing
- MKT09.391 Business to Business Marketing
- MGT06.304 Organizational Change and Development
- MGT06.405 Business Management Simulation
- MIS02.150 Integrated Business Software Tools
- ACC03.326 Cost Accounting
- PHIL09.322 Business Ethics
- THD07.365 Theatre Management
- EDP02.320 Public Administration
- ECON04.307 Economic Development

Free Electives 6-8 s.h.
Total Credits for Program 120 s.h.

BACHELOR OF SCIENCE IN HUMAN RESOURCE MANAGEMENT

Human Resource Management consists of planned organizational activities designed to improve employee efficiency and equity, such as staffing, compensation, and training. This major should be of interest to students pursuing careers as human resource managers, as well as to those who anticipate that they will someday be responsible for making hiring, performance appraisal, and pay decisions. Students working toward a B.S. in Human Resource Management must maintain a 2.00 grade point average overall and a 2.50 grade point average in all business courses taken.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirement as described on page 33

Required Courses
(may be included in General Education)

- MATH01.130 Calculus I
- or MATH03.125 Calculus Techniques and Applications
- STAT02.260 Statistics I
- CS0x.xxx **

**Take one course from the list of approved General Education computing courses having a course identification number of CS0x.xxx.

- ECON04.101 Introduction to Economics: Macroeconomic Perspective
- ECON04.102 Introduction to Economics: Microeconomic Perspective
- MKT09.200 Principles of Marketing
- ACC03.210 Principles of Accounting I
- ACC03.211 Principles of Accounting II
- MGT06.242 Legal Environment of Business
- MGT06.305 Operations Management
- FIN04.300 Principles of Finance
- MGT06.300 Organizational Behavior
- or MGT06.309 Organizational Behavior (WI)
- MGT06.402 Business Policy
- MIS02.214 Management Information Systems
- HRM06.302 Management of Human Resources
- MGT06.330 Managing International Business
- HRM06.315 Recruitment and Selection
- HRM16.401 Labor/Employer Relations
- HRM06.425 Management of Compensation
- HRM98.337 Legal Aspects of Human Resource Management-WI
- MGT06.361 Supervised Internship

Select 12 s.h. from the following list:
- Any upper-level non-required courses offered by Rowan University’s College of Business, or
- ECON04.345 Labor Economics
- ECON04.351 Health Economics
- ENT06.245 Entrepreneurship and Innovation
- MGT06.123 Introductory Management Perspectives for the 21st Century
- PHIL09.322 Business Ethics
MINOR IN HUMAN RESOURCES (HR)

The goal of the minor program is to provide non-Business majors with the opportunity to qualify for entry-level human resource management positions. The objective of the program is to understand the legal and regulatory environment of human resource management, to develop the capability of using state-of-the-art hiring and recruiting techniques, and to learn how to harmonize an organization’s compensation systems with its strategic goals. The program is based on the required human resource management coursework of the major in human resource management except that it has fewer required courses and fewer elective courses.

Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HRM06.302</td>
<td>Human Resource Management</td>
</tr>
<tr>
<td>or PSY08.220</td>
<td>Personnel Psychology</td>
</tr>
<tr>
<td>MGT98.242</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>HRM06.315</td>
<td>Recruitment and Selection</td>
</tr>
<tr>
<td>HRM06.425</td>
<td>Management of Compensation</td>
</tr>
<tr>
<td>HRM06.337</td>
<td>Legal Aspects of Human Resource Management</td>
</tr>
</tbody>
</table>

Electives: Select two (6 s.h.) courses from the list below

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MGT06.361</td>
<td>Supervised Internship*</td>
</tr>
<tr>
<td>PSY01.422</td>
<td>Field Experience in Psychology*</td>
</tr>
<tr>
<td>HRM06.420</td>
<td>Principles of Training</td>
</tr>
<tr>
<td>HRM16.401</td>
<td>Labor/Employer Relations</td>
</tr>
<tr>
<td>MGT06.304</td>
<td>Organizational Change and Development</td>
</tr>
<tr>
<td>PSY05.402</td>
<td>Psychology of Conflict and Conflict Resolution</td>
</tr>
<tr>
<td>HRM06.318</td>
<td>Human Resource Information Systems</td>
</tr>
</tbody>
</table>

* The internship or field experience must involve human resource management duties in order to count towards the minor.

To Apply

Students must complete at least twelve (letter graded) credit hours at Rowan and hold at least a 2.5 GPA. Students must have completed or be currently enrolled in either HRM 06.302 Human Resource Management or PSY 08.220 Personnel Psychology. Application for the minor can be made by sending an email to Dr. Joel Rudin, rudin@rowan.edu

Department of Marketing and Business Information Systems

Berrin Guner
Chair
Edgar F. Bunce Hall, Room 215
856.256.4013
guner@rowan.edu

The Marketing Department awards Bachelor of Science Degrees in Marketing (MKT) and Management Information Systems (MIS), and Business Administration: Supply Chain and Logistical Systems.

The marketing program focuses on strategic, as well as tactical, marketing concepts; it integrates the classical "Four P's" approach throughout its courses (product, price, promotion, place). Offerings stress the use of modern techniques to analyze and develop solutions to a wide variety of marketing opportunities and constraints.

The Management Information Systems Program prepares students for careers in a rapidly changing technological world by training them to analyze business problems, challenges, and opportunities and to subsequently design, develop, implement and maintain business solutions through the use of information and information technology.

The Supply Chain and Logistical Systems Specialization is an interdisciplinary program that incorporates components of accounting, management, management information systems, and marketing in order to prepare students for this rapidly expanding field by training them to understand the systems, costs, and tools used to manage domestic and international supply chains.

Students majoring in Marketing, MIS, or Business Administration: Supply Chain and Logistical Systems must maintain a 2.00 grade point average overall and a 2.50 grade point average in all business courses taken at Rowan University.

Students are encouraged to utilize their non-program courses and free electives to pursue minors and concentrations in other fields of study to increase their knowledge and enhance their employability in a dynamic job market.
BACHELOR OF SCIENCE IN MARKETING

General Education
All students must complete the University General Education requirements as described on page 31.

Rowan Experience
All students must complete the Rowan Experience requirement as described on page 33.

Required Courses
*(may be included in General Education)*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.130</td>
<td>Calculus I</td>
</tr>
<tr>
<td>or MATH03.125</td>
<td>Calculus Techniques and Applications</td>
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<tr>
<td>STAT02.260</td>
<td>Statistics I (Equivalent of College Algebra)</td>
</tr>
</tbody>
</table>

** Take one course from the list of approved General Education computing courses having a course identification number of CS0x.xxx.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON04.101</td>
<td>Introduction to Economics: Macroeconomic Perspective</td>
</tr>
<tr>
<td>ECON04.102</td>
<td>Introduction to Economics: Microeconomic Perspective</td>
</tr>
<tr>
<td>ACC03.210</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACC03.211</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>MGT08.242</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>MKT09.200</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>MGT06.305</td>
<td>Operations Management</td>
</tr>
<tr>
<td>FIN04.300</td>
<td>Principles of Finance</td>
</tr>
<tr>
<td>MGT06.300</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>MIS02.234</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>MGT06.402</td>
<td>Business Policy</td>
</tr>
</tbody>
</table>

Major Requirements 12 s.h.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT09.376</td>
<td>Consumer Behavior</td>
</tr>
<tr>
<td>MKT09.384</td>
<td>Research Methods in Marketing (WI)</td>
</tr>
<tr>
<td>MKT09.379</td>
<td>International Marketing (M/G)</td>
</tr>
<tr>
<td>MKT09.403</td>
<td>Strategic Marketing Management</td>
</tr>
</tbody>
</table>

Marketing Electives 15 s.h.

Electives courses are generally offered only once an academic year. Select 15 s.h. from the following list of any 300- or 400-level MKT course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MKT09.305</td>
<td>Internet Marketing</td>
</tr>
<tr>
<td>MKT09.315</td>
<td>Personal Selling</td>
</tr>
<tr>
<td>MKT09.330</td>
<td>Marketing Channels</td>
</tr>
<tr>
<td>MKT09.350</td>
<td>Management of Advertising and Promotion</td>
</tr>
<tr>
<td>MKT09.360</td>
<td>Services Marketing</td>
</tr>
<tr>
<td>MKT09.372</td>
<td>Retailing</td>
</tr>
<tr>
<td>MKT09.378</td>
<td>Product, Price &amp; New Venture Management</td>
</tr>
<tr>
<td>MKT09.375</td>
<td>Business Logistics</td>
</tr>
<tr>
<td>MKT09.382</td>
<td>Sales Force Management</td>
</tr>
<tr>
<td>MKT09.386</td>
<td>The Marketing Plan</td>
</tr>
<tr>
<td>MKT09.390</td>
<td>Selected Topics in Marketing</td>
</tr>
<tr>
<td>MKT09.391</td>
<td>Business to Business Marketing</td>
</tr>
<tr>
<td>MKT09.411</td>
<td>Supervised Internship in Marketing</td>
</tr>
</tbody>
</table>

Marketing or Business Electives 6 s.h.

The Business electives can be any two courses (6 s.h.) from the following list:

- Any non-required 300 or 400 level course offered by the Marketing Department
- Any Non-Required 300 or 400 level College of Business course except the Supervised Internships offered by the Management and Entrepreneurship or Accounting and Finance Departments
- MKT09.101 Marketing and the Business Environment (Rowan Seminar for incoming freshmen)

Free Electives 9 s.h.

Total Credits for Program 120-122 s.h.

MINOR IN MARKETING

Required

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT02.260</td>
<td>Statistics I <em>(may be included in General Education)</em></td>
</tr>
<tr>
<td>MIS02.234</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>MKT09.200</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>MKT09.376</td>
<td>Consumer Behavior</td>
</tr>
</tbody>
</table>
MKT09.384 Research Methods in Marketing
MKT09.379 International Marketing
MKT09.386 The Marketing Plan

Electives 3 s.h.
Select one (3 s.h.) course from the list below or any 300- or 400-level MKT course:
MKT09.375 Business Logistics
MKT09.391 Business to Business Marketing
MKT09.305 Internet Marketing
MKT09.330 Marketing Channels
MKT09.350 Management of Advertising and Promotion
MKT09.360 Services Marketing
MKT09.315 Personal Selling
MKT09.378 Product, Price, and New Venture Management
MKT09.372 Retailing
MKT09.382 Sales Force Management
MKT09.390 Selected Topics in Marketing
MKT09.411 Supervised Internship in Marketing

BACHELOR OF SCIENCE IN BUSINESS ADMINISTRATION, SUPPLY CHAIN AND BUSINESS SYSTEMS

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirement as described on page 33

Required Courses (may be included in General Education)
MATH01.130 Calculus I
or MATH03.125 Calculus Techniques and Applications
STAT02.260 Statistics I (Equivalent of College Algebra)

** Take one course from the list of approved General Education computing courses having a course identification number of CS0x.xxx.

ECON04.101 Introduction to Economics: Macroeconomic Perspective
ECON04.102 Introduction to Economics: Microeconomic Perspective
ACCo3.310 Principles of Accounting I
ACCo3.311 Principles of Accounting II
MGT09.242 Legal Environment of Business
MKT09.200 Principles of Marketing
MGT06.305 Operations Management
FIN04.300 Principles of Finance
MGTo6.300 Organizational Behavior
MIS02.234 Management Information Systems
MGTo6.402 Business Policy

Specialization Requirements 18 s.h.
MKT09.375 Business Logistics
MIS02.322 Principles of System Design
ACCo3.326 Cost Accounting
MGTo6.406 Improving Business Processes
MKT09.386 Supply Chain Management and Logistics
MKT09.406 Strategic Supply Chain Management

Supply Chain and Logistical Systems Specialization Electives 15 s.h.
Select one WI course from the following list (3 semester hours):
MKT09.384 Research methods in Marketing (WI)
MIS02.333 E-Business—IS Perspectives (WI)

Select one MC/G course from the following list (3 semester hours):
MKT09.379 International Marketing
MGT06.330 Managing International Business
FIN04.435 International Financial Management

Select one 2 courses from the following list: 6 s.h.
MKT09.360 Services Marketing
MKT09.391 Business-to-Business Marketing
MKT09.370 Marketing Channels

Select one supervised internship 3 s.h.
Any existing 3-semester supervised internship course offered by a RCOB department or program

**BACHELOR OF SCIENCE IN MANAGEMENT INFORMATION SYSTEMS (MIS)**

Students working toward a B.S. in Management Information Systems must maintain a 2.00 cumulative grade point average and a 2.50 grade point average in all business courses completed at Rowan.

**General Education**

All students must complete the University General Education requirements as described on 31

**Rowan Experience**

All students must complete the Rowan Experience requirement as described on 33

**Required Courses**

(may be included in General Education)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.130</td>
<td>Calculus I</td>
</tr>
<tr>
<td>or MATH03.125</td>
<td>Calculus Techniques and Applications</td>
</tr>
<tr>
<td>STAT02.260</td>
<td>Statistics I (Equivalent of College Algebra)</td>
</tr>
<tr>
<td>CS04.140</td>
<td>Enterprise Computing I</td>
</tr>
<tr>
<td>MKT09.200</td>
<td>Principles of Marketing</td>
</tr>
<tr>
<td>ACC03.210</td>
<td>Principles of Accounting I</td>
</tr>
<tr>
<td>ACC03.211</td>
<td>Principles of Accounting II</td>
</tr>
<tr>
<td>MGT08.242</td>
<td>Legal Environment of Business</td>
</tr>
<tr>
<td>MGT06.305</td>
<td>Operations Management</td>
</tr>
<tr>
<td>FIN04.300</td>
<td>Principles of Finance</td>
</tr>
<tr>
<td>MGT06.300</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>or MGT06.309</td>
<td>Organizational Behavior (WI)</td>
</tr>
<tr>
<td>MIS02.234</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>MGT06.402</td>
<td>Business Policy</td>
</tr>
</tbody>
</table>

**Major Requirements**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS02.330</td>
<td>Business Systems</td>
</tr>
<tr>
<td>MIS02.322</td>
<td>Principles of Systems Design</td>
</tr>
<tr>
<td>MIS02.338</td>
<td>Design of Database Systems</td>
</tr>
<tr>
<td>MIS02.316</td>
<td>Advanced Database Management</td>
</tr>
<tr>
<td>MIS02.327</td>
<td>Network Management</td>
</tr>
<tr>
<td>MIS02.428</td>
<td>Business Web Applications</td>
</tr>
<tr>
<td>MIS02.325</td>
<td>Project Management</td>
</tr>
<tr>
<td>MGT06.310</td>
<td>Managing International Business</td>
</tr>
<tr>
<td>or MKT09.379</td>
<td>International Marketing (M/G)</td>
</tr>
<tr>
<td>MIS02.333</td>
<td>E-Business: IS Perspective-WI</td>
</tr>
<tr>
<td>MIS02.450</td>
<td>MIS Capstone Experience</td>
</tr>
</tbody>
</table>

MIS Elective Select 6 s.h. from the following list:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS02.344</td>
<td>MIS Supervised Internship</td>
</tr>
<tr>
<td>MIS02.320</td>
<td>Seminar in MIS</td>
</tr>
<tr>
<td>MIS02.150</td>
<td>Integrated Business Software Tools</td>
</tr>
<tr>
<td>HRM06.318</td>
<td>Human Resource Information Systems</td>
</tr>
<tr>
<td>ACC03.326</td>
<td>Cost Accounting</td>
</tr>
<tr>
<td>FIN04.422</td>
<td>Financial Management I</td>
</tr>
<tr>
<td>MGT06.304</td>
<td>Organizational Change and Development</td>
</tr>
<tr>
<td>ENT06.326</td>
<td>Entrepreneurship and Small Business Management</td>
</tr>
<tr>
<td>MGT06.401</td>
<td>Independent Project</td>
</tr>
<tr>
<td>MKT09.305</td>
<td>Internet Marketing</td>
</tr>
<tr>
<td>HRM06.420</td>
<td>Principles of Training/Training Management</td>
</tr>
<tr>
<td>WA01.400</td>
<td>Writing for the Workplace</td>
</tr>
<tr>
<td>CS01.102</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>CS01.205</td>
<td>Computer Lab Techniques</td>
</tr>
<tr>
<td>CS04.110</td>
<td>An Introduction to Programming Using Robots</td>
</tr>
<tr>
<td>CS04.222</td>
<td>Data Structure and Algorithms</td>
</tr>
<tr>
<td>PHIL09.130</td>
<td>Introduction to Symbolic Logic</td>
</tr>
<tr>
<td>PHIL09.322</td>
<td>Business Ethics</td>
</tr>
<tr>
<td>CMS04.220</td>
<td>Interpersonal Communication</td>
</tr>
<tr>
<td>GEOG16.260</td>
<td>Introduction Geographic Information Systems</td>
</tr>
<tr>
<td>INTR01.265</td>
<td>Computers and Society</td>
</tr>
</tbody>
</table>

**Free Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
</table>

120 s.h.

**Total Credits for the Program**

120 s.h.
MINOR IN MANAGEMENT INFORMATION SYSTEMS

Required 12 s.h.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS02.233</td>
<td>Principles of Management Information Systems</td>
</tr>
<tr>
<td>or MIS02.234</td>
<td>Management Information Systems</td>
</tr>
<tr>
<td>MIS02.330</td>
<td>Business Systems</td>
</tr>
<tr>
<td>MIS02.338</td>
<td>Design of Database Systems</td>
</tr>
<tr>
<td>MIS02.322</td>
<td>Principles of Systems Design</td>
</tr>
</tbody>
</table>

Electives: Select two (6 s.h.) courses from the list below:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MIS02.325</td>
<td>Project Management</td>
</tr>
<tr>
<td>MIS02.336</td>
<td>Advanced Database Management</td>
</tr>
<tr>
<td>MIS02.327</td>
<td>Network Management</td>
</tr>
<tr>
<td>MIS02.332</td>
<td>E-Business: I.S. Perspective</td>
</tr>
<tr>
<td>or MIS02.333</td>
<td>E-Business: I.S. Perspective (WI)</td>
</tr>
<tr>
<td>CS04.140</td>
<td>Enterprise Computing I</td>
</tr>
</tbody>
</table>

Total Credits for the Program 18 s.h.
College of Communication and Creative Arts

Lorin Basden Arnold
Dean
Bozorth Hall
856.256.4340
arnold@rowan.edu

Julie Haynes
Associate Dean
Bozorth Hall
856.256.4337
haynes@rowan.edu

Esther Mummert
Academic Advisor
Bozorth Hall
856.256.4090
mummerte@rowan.edu

David E. Vaccaro
Advisor
Westby Hall
856.256.4091
vaccaro@rowan.edu

History
The College of Communication was established July 1, 1996, after unanimous final approval by the Rowan University Board of Trustees at their June 1996 meeting. In 2012, the Department of Art joined the college, and the college was renamed the College of Communication and Creative Arts to reflect the full range of programs and courses.

Programs Offered
The College offers eight undergraduate majors: Advertising, Art, Communication Studies, Journalism, Public Relations, Radio/TV/Film, Studio Art, and Writing Arts. The Department of Writing Arts administers the general education writing program for the University. Minors are offered in Advertising, Art, Art History, Communication Studies, Journalism, and Writing Arts. Concentrations are available in Audio Recording, Creative Writing and New Media. The College houses two graduate programs: the M.A. in Public Relations and the M.A. in Writing, and six Certificates of Graduate Study (Creative Writing; Editing and Publishing for Writers; Integrated Marketing and New Media; School Public Relations; Writing and New Media; Writing, Composition, and Rhetoric).

Introduction
The College of Communication and Creative Arts at Rowan University blends the theoretical, the creative, and the practical, building upon an expansive base of general education courses that serve to develop a liberal arts perspective in all areas. Experimental learning is a strong component of the programs and internships are encouraged in all majors.

Departments
The College of Communication and Creative Arts houses six departments: Art, Communication Studies, Journalism, Public Relations/Advertising, Radio/Television/Film, and Writing Arts.

Services
In addition to regular classrooms, the College of Communication and Creative Arts makes extensive use of specialized laboratories. Students learn in new digital production facilities that include two full video/film production studios, a satellite connection, three radio production labs, digital video/film editing suites, and a 130-seat screening theatre. Students can learn layout, desktop publishing, and numerous other skills in the journalism laboratory. Courses in fine art and graphic design are held in a variety of studio spaces, providing equipment and facilities for a wide range of creative experiences. The college also provides students with two networked writing labs, and a full service Writing Center, providing support for students across the university.

Core Requirements
All of the College of Communication and Creative Arts B.A. programs require 33-39 semester hours of major courses. The B.F.A. in Studio Art, a highly intensive studio experience, requires 78 credit hours of art courses.
General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Department of Art
Susan Bowman
Chair
Westby Hall
856.256.4019
bowman@rowan.edu

The Art Department offers two degree programs: The Bachelor of Fine Arts in Studio Art (BFA) and the Bachelor of Arts in Art (BA).

All students are considered foundation students for the first year. In the first year, all students take the Foundation Core: Representational Drawing, Figure Drawing, Expressive Drawing, Two-Dimensional Design, Three-Dimensional Design, Color Theory, and Digital Media & Techniques. During the semester a student is completing the final studio courses in the Foundation Core, he/she signs up for the Foundation Core Portfolio Review.

Each candidate applying for admission as an art student is required to personally present a portfolio containing twelve examples (a minimum of six original representational drawings) of his/her best work for review by the art faculty. Photographs or slides may be substituted for large or three-dimensional work. A 250-word essay discussing why the applicant wishes to pursue studies in the visual arts is also required. Applicants may schedule appointments by contacting the Art Office 856.256.4520.

These admission standards apply to all art students: freshmen, transfers from other institutions and Rowan University students changing their majors.

Note: In addition to tuition, fees and normal book costs, art majors should anticipate additional fees for materials and equipment used in studio courses.

Accreditation
Specialized, national arts accreditation has been granted by the following organizations:
• The National Association of Schools of Art & Design

BACHELOR OF FINE ARTS IN STUDIO ART
David E. Vaccaro
Advisor
Westby Hall
856.256.4091
vaccaro@rowan.edu

The Bachelor of Fine Arts in Studio Art (BFA) A professional, studio-intensive, degree program for students who wish to become illustrators, designers or fine artists. The standards are high, the work is demanding, and the rewards are great.

The BFA at Rowan is a general fine arts degree. It provides students with a thorough grounding in fundamental principles and techniques with opportunities for emphasis in one or more specific fine arts areas. Studios include Biomedical Art and Visualization, Ceramics, Graphic Design, Illustration, Metals/Jewelry, Painting, Photography, Printmaking, and Sculpture.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Major Requirements
Foundation Core

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ART02.100</td>
<td>Representational Drawing</td>
</tr>
<tr>
<td>ART02.200</td>
<td>Expressive Drawing</td>
</tr>
<tr>
<td>ART02.105</td>
<td>Color &amp; Design - 2D</td>
</tr>
<tr>
<td>ART02.207</td>
<td>Color &amp; Design - 3D</td>
</tr>
<tr>
<td>ART02.222</td>
<td>Studio Core Portfolio Review</td>
</tr>
</tbody>
</table>
Studio Choices
Sophomore Year:
  ART09.301  Digital Media & Techniques
  ART02.110  Figure Drawing
  ART09.308  Color Theory
Primary Studio and support courses are determined with academic and studio advisors. Studios include Biomedical Art and Visualization, Ceramics, Graphic Design, Illustration, Metals/Jewelry, Painting, Photography, Printmaking, and Sculpture.
  ART09.390  Work in Progress Review
  ART09.490  BFA Senior Thesis/Exhibition

Art Studio Electives
Art History
  ARHS03.103  Art History Survey I
  ARHS03.104  Art History Survey II
  ARHS03.205  Art History Survey III
  ARHS03.205  Art History Choice

Other Required courses
  Additional 3 s.h. from the Artistic and Creative Experiences Bank

Program Total  120 s.h.

BACHELOR OF ARTS IN ART
David E. Vaccaro
Advisor
Westby Hall
856.256.4091
vaccaro@rowan.edu

A liberal arts degree program for students who wish to become art teachers or desire a broad academically-oriented education with an emphasis in art.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the University Rowan Experience requirements as described on page 33

Major Requirements
Foundation Core
  ART02.100  Representational Drawing
  ART02.200  Expressive Drawing
  ART02.105  Color and Design-2D
  ART02.207  Color and Design-3D
  ART02.222  Studio Core Portfolio Review
  ART09.401  Senior Project Art
  ARHS03.103  Art History Survey I
  ARHS03.104  Art History Survey II
  ARHS03.205  Art History Survey III

Studio Choices
Primary Studio and support courses are determined with academic and studio advisors. Studios include Biomedical Art and Visualization, Ceramics, Graphic Design, Illustration, Metals/Jewelry, Painting, Photography, Printmaking, and Sculpture.

Other Required courses
  Additional 6 s.h. from the History/Humanities Language Bank
  Additional 3 s.h. from the Artistic and Creative Experiences Bank

Program Total  120 s.h.

BACHELOR OF ARTS IN ART - ART EDUCATION
Jane E. Graziano
Coordinator/Art
Westby Hall
856.256.4500 x4045
graziano@rowan.edu

David E. Vaccaro
Advisor/Art
Westby Hall
This program offers students an opportunity to satisfy degree requirements for a BA in Art and a BA in Education, and New Jersey State Teacher Certification K-12 specialization in Art. The program's goals are to prepare students to become teachers of the visual arts by building a strong foundation in art knowledge and skills, and educational theory and practice. For more in-depth studio opportunities students enrolled in this degree program may choose to apply for the Bachelor of Fine Arts degree program at the end of their sophomore year.

Further information about this program can be obtained from the Department of Art 856.256.4520 and the Department of Teacher Education 856.256.4738 or 4739.

Information for the Post-Baccalaureate Certification program can be obtained from The Graduate School 856.256.4053.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Art Major Requirements

Foundation Core

- **ART02.100** Representational Drawing
- **ART02.200** Expressive Drawing
- **ART02.105** Color & Design - 2D
- **ART02.207** Color & Design - 3D
- **ART02.222** Studio Core Portfolio Review

Art History

- **ARHS03.103** Art History Survey I
- **ARHS03.104** Art History Survey II
- **ARHS03.205** Art History Survey III

Studio

- **ART09.301** Digital Media & Techniques
- **ART02.220** Introduction to Painting
- **ART02.240** Introduction to Sculpture
- or **ART09.240** Introduction to Ceramics

Art Major Studio Elective

**Pursuant to New Jersey’s Department of Education requirements for Teacher of Art Certificate, an additional 12 s.h. of advanced studio are required.**

- **ART09.401** Senior Project Art

Other Required Courses

- **SPED08.130** Human Exceptionality
- **FNDS21.230** Characteristics of Knowledge Acquisition
- **ART09.209** Child Development
- **PSY09.210** Adolescent Development
- **FNDS21.150** History of American Education

6 additional s.h. from the History, Humanities and Languages Bank

3 additional s.h. from Artistic and Creative Experience Bank

Education Requirements

- **EDUC01.270** Teaching in the Learning Communities I
- **EDUC01.282** Teaching in the Learning Communities II-Art
- **READ30.319** Teaching Reading/Writing in the Content Area
- **SMED31.420** Integrating Ed. Technology into Teaching
- **SMED31.350** Elementary Art Methods: Teaching/Learning Art A: Art
- **SECD03.330** Practicum Teaching/Learning A: Art
- **ART09.201** Community Art Education for Elementary-Middle Grades
- **SMED31.360** Secondary Art Methods: Teaching/Learning B: Art
- **SECD03.332** Practicum Teaching/Learning B: Art
- **ART09.202** Community Art Education for Secondary Grades
- **SMED31.450** Clinical Practice in Art Education
- **SMED31.451** Clinical Practice Seminar for Art Education
MINOR IN ART
David E. Vaccaro
Advisor
Westby Hall
856.256.4091
vaccaro@rowan.edu

Eligibility
The Minor in Art is open to any interested Rowan student. A portfolio review is required. Transfer students are required to take a minimum of fifteen credit hours toward the minor at Rowan University.

Program
The Minor in Art consists of 24 semester hours made up of five core courses and three studio electives, as follows:

Foundation Core
- ART02.100 Representational Drawing
- ART02.105 Color and Design-2D
- ART02.200 Expressive Drawing
- ART02.207 Color and Design-3D
- ARHS03.130 Art Appreciation

Studio Electives: (Choose three)

Note: If intermediate courses are selected, prerequisites listed in the catalog descriptions of these courses must be met.
- ART11.250 Photography I
- ART11.275 Photography II
- ART02.220 Intro to Painting
- ART02.240 Intro to Sculpture
- ART02.260 Intro to Printmaking
- ART09.210 Intro to Metals/Jewelry
- ART09.225 Puppetry I
- ART09.240 Intro to Ceramics
- ART09.228 Intro to Illustration
- ART09.343 Intro to Graphic Design I
- ART09.351 Computer Art I
- ART02.110 Figure Drawing
- ART02.315 Intermed. Painting
- ART02.201 Intermed. Sculpture
- ART02.317 Intermed. Printmaking
- ART09.226 Intermed. Puppetry
- ART09.311 Intermed. Metals/Jewelry
- ART09.344 Graphic Design II Typography
- ART09.352 Intermed. Ceramics
- ART09.336 Intermed. Illustration
- ART09.452 Computer Art II
- ART11.405 Advanced Photography

BACHELOR OF FINE ARTS IN STUDIO ART WITH SPECIALIZATION IN GRAPHIC DESIGN
David E. Vaccaro
Advisor
Westby Hall
856.256.4091
vaccaro@rowan.edu

A professional, studio-intensive, BFA specialization for students who wish to become graphic designers. The graphic design industry is highly competitive and broad ranging. This specialization allows Rowan University students who wish to enter the graphic design field the added advantage of demonstrating to potential employers that they have followed a sequential course of study. The curriculum consists of the seven graphic design courses offered by the Department of Art and fulfills the graphic design specialization requirements. This BFA specialization provides a comprehensive education for students who are interested in entering the graphic design profession.
General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the University General Education requirements as described on page 33

Major Requirements
Foundation Core
- ART02.100 Representational Drawing
- ART02.200 Expressive Drawing
- ART02.105 Color & Design - 2D
- ART02.207 Color & Design - 3D
- ART02.222 Studio Core Portfolio Review

Primary Studios and Studio Choices
Sophomore Year:
- ART09.301 Digital Media & Techniques
- ART02.110 Figure Drawing
- ART09.308 Color Theory

Primary Studio and support courses determined with academic and studio advisors.

Note: Not all courses are offered each semester.
- ART09.343 Introduction to Graphic Design I
- ART09.344 Intermediate Graphic Design II (Typography)
- ART09.349 Intermediate Graphic Design III (Visual Identity)
- ART09.350 Intermediate Graphic Design IV (Packaging)
- ART09.363 Advanced Graphic Design V (Publication)
- ART09.364 Adv Graphic Design VI (Visual Communication)
- ART09.464 Adv Graphic Design VIII (Portfolio)

Distributive studio electives include Biomedical Art and Visualization, Ceramics, Illustration, Metals/Jewelry, Painting, Photography, Printmaking, and Sculpture.

- ART09.390 Work in Progress Review
- ART09.490 Senior Thesis/Exhibition

Art Studio Electives

Art History
- ARHS03.103 Art History Survey I
- ARHS03.104 Art History Survey II
- ARHS03.205 Art History Survey III

Art History Choice

Other Required courses
Additional 3 s.h. from the Artistic and Creative Experiences Bank

Program Total 120 s.h.

BACHELOR OF FINE ARTS IN STUDIO ART WITH SPECIALIZATION IN BIOMEDICAL ART AND VISUALIZATION
David E. Vaccaro
Advisor
Westby Hall
856.256.4091
vaccaro@rowan.edu

The Specialization in Biomedical Art and Visualization is an arts-based area of study that uses elements of fine art and design to specialize in the portrayal of scientific processes and information. It requires that students develop understanding of aesthetic arrangement, refining visual organization skills in drawing, illustration, animation and graphic communication. This visual arts-based knowledge is integrated with content information from the natural and medical science fields. The curriculum consists of the seven courses offered by the Department of Art and fulfills the Biomedical Art and Visualization specialization requirements.

General Education
All students must complete the University General Education requirements as described on page 31
**Rowan Experience**
All students must complete the University General Education requirements as described on page 33

**Major Requirements**

**Foundation Core**
- ART02.100 Representational Drawing
- ART02.200 Expressive Drawing
- ART02.105 Color & Design - 2D
- ART02.207 Color & Design - 3D
- ART02.222 Studio Core Portfolio Review

**Primary Studios and Studio Choices**

Sophomore Year:
- ART09.301 Digital Media & Techniques
- ART02.110 Figure Drawing
- ART09.308 Color Theory

Primary Studio and support courses determined with academic and studio advisors.

*Note:* Not all courses are offered each semester.
- ART09.251 Anatomy for the Artist
- ART09.252 Information Visualization: Line, Color, and Form
- ART09.253 Introduction to Biomedical Digital 3D Modeling & Visualization
- ART09.351 Introduction to Biomedical Illustration
- ART09.352 Biomedical Visualization in Motion
- ART09.453 Biomedical Art: Simulation & Education Game Design
- ART09.452 Surgical Illustration and Media

Distributive studio electives include Ceramics, Graphic Design, Illustration, Metals/Jewelry, Painting, Photography, Printmaking, and Sculpture.
- ART09.390 Work in Progress Review
- ART09.490 Senior Thesis/Exhibition

**Art Studio Electives**

**Art History**
- ARHS03.103 Art History Survey I
- ARHS03.104 Art History Survey II
- ARHS03.205 Art History Survey III
- Art History Choice

**Other Required courses**
Additional 3 s.h. from the Artistic and Creative Experiences Bank

**Program Total** 120 s.h.

**MINOR IN ART HISTORY**

David E. Vaccaro
Advisor
Westby Hall
856.256.4091
vaccaro@rowan.edu

**Eligibility**
The Minor in Art History is open to any interested Rowan student. Transfer students are required to take a minimum of twelve credit hours toward the minor at Rowan University.

**Program Requirements**
The Minor in Art History consists of 18 semester hours. There are three required Art History core courses and three Art History electives, as follows:

**Art History Core Courses:**
- ARHS03.103 Art History Survey I
- ARHS03.104 Art History Survey II
- ARHS03.205 Art History Survey III

*Note:* These courses are offered every semester.

**Art History Electives (Choose three)**
- ARHS03.310 History of American Art
- ARHS03.220 Modern Art
- ARHS03.252 Concepts in Art: Criticism (WI)(*)

*Note:* If intermediate courses are selected, prerequisites listed in the catalog descriptions of these courses must be met. Courses marked with an asterisk (*) are not offered every semester.
Department of Communication Studies

Joy M. Cypher
Chair
Hawthorn Hall
856.256.4771
cypher@rowan.edu

This department offers a Bachelor of Arts in the discipline of Communication Studies that enables students to develop a sophisticated understanding of communication theory, research, and strategies. Courses such as Persuasion and Social Influence, Interpersonal Communication, Small Group Communication, Rhetorical Theory, Ethical Issues in Human Communication, and Seminar in Communication Studies provide a broad and rigorous grounding in communication theory, research, and practice.

BACHELOR OF ARTS IN COMMUNICATION STUDIES

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Core Requirements
(Must be completed with grades no lower than a C-)

19 s.h.

CMS04.200 Introduction to Communication Studies
CMS04.250 Communication Theory
CMS04.300 Ethical Issues in Human Communication
CMS04.350 Communication Studies Research Methods
CMS04.390 Rhetorical Criticism
CMS04.450 Seminar in Communication Studies

Communication Studies Specializations
Select four courses from one of the following groups (must be completed with grades no lower than a C-):

12 s.h.

Rhetoric/Cultural Criticism

CMS04.210 Mass Media and Their Influences
CMS04.270 Persuasion and Social Influence
CMS04.290 Rhetorical Theory
CMS04.310 Images of Gender in Popular Culture
CMS04.315 Participatory Media
CMS04.330 International Media Communication
CMS04.370 Political Communication
CMS04.375 Special Topics in Communication
CMS04.385 Constructing Health

Interpersonal/Organizational Communication

CMS04.220 Interpersonal Communication
CMS04.255 Nonverbal Communication
CMS04.240 Small Group Communication
CMS04.260 Organizational Communication Theory and Research
CMS04.320 Communicating Gender
CMS04.340 Family Communication
CMS04.360 Intercultural Communication
CMS04.375 Special Topics in Communication
CMS04.380 Health Communication
CMS04.385 Constructing Health

Cross-Specializations Elective 3 s.h.
Each student will select and complete one course from the emphasis area in which they are NOT specializing in (with a grade no lower than a C-).

Related Electives 6 s.h.
Each student must select 2 courses related to the major. These can be any courses offered by the Department of the Communication Studies (not counting those that have been used to fulfill the requirements listed above) or any relevant courses offered in the College of Communication and Creative Arts, chosen in concert with the student’s academic advisor.
Other Requirements

- Psychology Course
- Economics or Political Science Course
- Total of 3 Math/Science Courses
- Total of 4 History/Humanities/Language Courses
- Sociology Course
- History or Philosophy Course
- Total of four (4) Social & Behavioral Science Courses

Free Electives 37 s.h.

To graduate, students must have a 2.5 GPA in core, specialization and cross specialization courses and a 2.0 overall.

Total Credits in Program 120 s.h.

MINOR IN COMMUNICATION STUDIES

Required Core 6 s.h.

All Communication Studies minors should complete the following two courses (with grades no lower than a C-):

- CMS04.200 Introduction to Communication Studies
- CMS04.250 Communication Theory

Communication Studies Specialization Selections 12 s.h.

Each student will complete 4 courses within the specializations, with at least one course in each (with grades no lower than a C-):

Rhetoric/Cultural Criticism

- CMS04.210 Mass Media and Their Influences
- CMS04.270 Persuasion and Social Influence
- CMS04.290 Rhetorical Theory
- CMS04.310 Images of Gender in Popular Culture
- CMS04.315 Participatory Media
- CMS04.330 International Media Communication
- CMS04.370 Political Communication
- CMS04.375 Special Topics in Communication
- CMS04.385 Constructing Health
- CMS04.390 Rhetorical Criticism

Interpersonal/Organizational Communication

- CMS04.220 Interpersonal Communication
- CMS04.240 Small Group Communication
- CMS04.260 Organizational Communication Theory and Research
- CMS04.320 Communicating Gender
- CMS04.340 Family Communication
- CMS04.355 Nonverbal Communication
- CMS04.360 Intercultural Communication
- CMS04.375 Special Topics in Communication
- CMS04.380 Health Communication
- CMS04.385 Constructing Health

Department of Journalism

Claudia Cuddy
Chair
Bozorth Hall
856.256.5414
cuddy@rowan.edu

The Department of Journalism houses the Journalism major and minor.

BACHELOR OF ARTS IN JOURNALISM

The Bachelor of Arts in Journalism prepares students for a variety of journalism career opportunities in writing, broadcast, multimedia and editing/publishing.

General Education

All students must complete the University General Education requirements as described on page 31

Rowan Experience

All students must complete the Rowan Experience requirements as described on page 33

Core Courses Required 27 s.h.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRN02.205</td>
<td>Journalism Principles and Practices</td>
</tr>
<tr>
<td>JRN02.310</td>
<td>News Reporting I</td>
</tr>
<tr>
<td>JRN02.311</td>
<td>News Reporting II</td>
</tr>
<tr>
<td>JRN02.321</td>
<td>Online Journalism I</td>
</tr>
<tr>
<td>JRN02.325</td>
<td>Online Journalism II</td>
</tr>
<tr>
<td>JRN02.319</td>
<td>Media Ethics</td>
</tr>
<tr>
<td>JRN02.411</td>
<td>Copy Editing</td>
</tr>
<tr>
<td>JRN02.335</td>
<td>Media Law</td>
</tr>
<tr>
<td>JRN02.410</td>
<td>Journalism Senior Seminar</td>
</tr>
</tbody>
</table>

**Sequences**  
(Each student must choose at least one sequence.)

**Writing**
- **JRN02.312**: Feature Writing
- **JRN02.313**: Magazine Article Writing
- **JRN02.356**, **JRN02.358**, **JRN02.359**: Journalism Internship Fall, Spring or Summer

**Choice from Approved Options list**

**Broadcast**
- **JRN02.341**: Broadcast News Writing
- **JRN02.307**: On-Camera Field Reporting (Fall)
- **JRN02.305**: Broadcast Journalism: TV Newscast (Spring)

**Choice from Approved Options list**

**Multimedia**
- **JRN02.317**: Publication Layout and Design
- **JRN02.314**: Photojournalism
- **RTF03.295**: Intro to New Media

**Choice from Approved Options list**

**Editing and Publishing**
- **JRN02.425**: Advanced Publication Layout
- **JRN02.332**: The Publishing Industry (Spring)

**Choice from Approved Options list**

**Approved Options for Fourth Sequence Course**

Choose from this list for your "choice" in your sequence. Any other courses you select from this list will be counted as free electives.

- **JRN02.332**: The Publishing Industry (Spring)
- **RTF03.220**: The Television Industry
- **JRN02.407**: Special Topics Courses (These vary each Semester. Student may take more than one.)
Free Electives
39 s.h.
Try to use at least 12 s.h. to build an area of expertise relevant to your program.

Total Hours Required for Graduation (with Gen Ed Courses) = 120 s.h.
Students must earn a grade of at least a C minus in each major course under Core Requirements and Sequences.
Students must maintain a 2.5 GPA in their 39 credits of the major, and a 2.0 overall GPA to graduate with a B.A. in Journalism.
Students may earn up to 9 credits in internships. Any other internships can be taken on their own, but not for credit.

MINOR IN JOURNALISM
This program is designed to address the needs of students who wish to combine two areas of academic study into one profession (such as business journalism or writing about the arts) or to increase their understanding of journalism from an academic standpoint, an option that may be particularly useful for education majors.

The program consists of 18 credits, and students must complete College Composition I (COMP01.111) and College Composition II (COMP01.112) and achieve an overall 2.0 GPA in order to be admitted to the minor.

Required Courses
9 s.h.
Note: Prerequisites are in parentheses "()"

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRN02.205</td>
<td>Journalism Principles and Practices</td>
</tr>
<tr>
<td>JRN02.310</td>
<td>News Reporting I</td>
</tr>
<tr>
<td>JRN02.321</td>
<td>Online Journalism I</td>
</tr>
</tbody>
</table>

Electives: (choose three)
9 s.h.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>JRN02.425</td>
<td>Advanced Publication Layout</td>
</tr>
<tr>
<td>JRN02.320</td>
<td>Broadcast Journalism: Radio (Spring)</td>
</tr>
<tr>
<td>JRN02.305</td>
<td>Broadcast Journalism: TV Newcast (Spring)</td>
</tr>
<tr>
<td>JRN02.341</td>
<td>Broadcast News Writing</td>
</tr>
<tr>
<td>JRN02.411</td>
<td>Copy Editing</td>
</tr>
<tr>
<td>JRN02.318</td>
<td>Investigative Journalism</td>
</tr>
<tr>
<td>JRN02.312</td>
<td>Feature Writing</td>
</tr>
<tr>
<td>JRN02.313</td>
<td>Magazine Article Writing</td>
</tr>
<tr>
<td>JRN02.319</td>
<td>Media Ethics</td>
</tr>
<tr>
<td>JRN02.335</td>
<td>Media Law</td>
</tr>
<tr>
<td>JRN02.311</td>
<td>News Reporting II</td>
</tr>
<tr>
<td>JRN02.307</td>
<td>On-Camera Field Reporting (Fall)</td>
</tr>
<tr>
<td>JRN02.325</td>
<td>Online Journalism II</td>
</tr>
<tr>
<td>JRN02.314</td>
<td>Photojournalism</td>
</tr>
<tr>
<td>JRN02.410</td>
<td>Journalism Senior Seminar</td>
</tr>
<tr>
<td>JRN02.317</td>
<td>Publication Layout and Design</td>
</tr>
<tr>
<td>JRN02.323</td>
<td>Crime Reporting</td>
</tr>
<tr>
<td>JRN02.324</td>
<td>Health Reporting</td>
</tr>
<tr>
<td>JRN02.326</td>
<td>Sports Broadcast</td>
</tr>
<tr>
<td>JRN02.361</td>
<td>Sports Journalism I</td>
</tr>
<tr>
<td>JRN02.362</td>
<td>Sports Journalism II</td>
</tr>
<tr>
<td>JRN02.332</td>
<td>The Publishing Industry (Spring)</td>
</tr>
</tbody>
</table>

Substitution of one course NOT on the above list of electives may be made with the approval of the student’s advisor.

Department of Public Relations and Advertising
Suzanne FitzGerald
Chair
Bozorth Hall
856.256.4265
sparks@rowan.edu

The Public Relations & Advertising Department offers majors in public relations and advertising and a minor in advertising. Core courses, such as Basic Public Relations Writing, offer students a solid foundation in communication, while upper-level courses qualify students for a wide range of careers in public relations, advertising, and related fields.

The Department also offers a graduate program leading to a Master of Arts in Public Relations. The Department advises a nationally acclaimed chapter of the Public Relations Student Society of America and a student chapter of the American Advertising Federation. Rowan University's Public Relations program was the 16th program in the country to receive CEPR (Certified in Education for Public Relations) accreditation from the Public Relations Society of America.
BACHELOR OF ARTS IN PUBLIC RELATIONS

General Education
All students must complete the University General Education requirements as described on page 31.

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33.

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR06.350</td>
<td>Introduction to Public Relations</td>
</tr>
<tr>
<td>ADV04.330</td>
<td>Introduction to Advertising</td>
</tr>
<tr>
<td>PR06.310</td>
<td>Intro PR/Adv Research</td>
</tr>
<tr>
<td>PR06.301</td>
<td>Basic Public Relations Writing</td>
</tr>
<tr>
<td>PR06.305</td>
<td>Advanced Public Relations Writing</td>
</tr>
<tr>
<td>JRN02.317</td>
<td>Publication Layout &amp; Design</td>
</tr>
<tr>
<td>PR06.355</td>
<td>PR/AD Law and Ethics</td>
</tr>
<tr>
<td>PR99.362</td>
<td>Public Opinion</td>
</tr>
<tr>
<td>PR06.353</td>
<td>Case Studies in Public Relations (WI)</td>
</tr>
<tr>
<td>PR06.454</td>
<td>PR Planning (WI)</td>
</tr>
</tbody>
</table>

Related Electives

Select two courses from the following groups:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADV04.360</td>
<td>Integrated Marketing Communication</td>
</tr>
<tr>
<td>ADV04.432</td>
<td>Media Planning</td>
</tr>
<tr>
<td>CMS04.210</td>
<td>Mass Media</td>
</tr>
<tr>
<td>CMS04.240</td>
<td>Small Group Communication</td>
</tr>
<tr>
<td>CMS04.250</td>
<td>Communication Theory</td>
</tr>
<tr>
<td>CMS04.270</td>
<td>Persuasion and Social Influence</td>
</tr>
<tr>
<td>CMS04.370</td>
<td>Political Communication</td>
</tr>
<tr>
<td>CMS04.380</td>
<td>Health Communication</td>
</tr>
<tr>
<td>JRN02.310</td>
<td>News Reporting I</td>
</tr>
<tr>
<td>JRN02.312</td>
<td>Feature Writing</td>
</tr>
<tr>
<td>JRN02.313</td>
<td>Magazine Article Writing</td>
</tr>
<tr>
<td>JRN02.319</td>
<td>Media Ethics</td>
</tr>
<tr>
<td>JRN02.335</td>
<td>Media Law</td>
</tr>
<tr>
<td>MGT06.300</td>
<td>Organizational Behavior</td>
</tr>
<tr>
<td>PR06.354</td>
<td>Impact of PR on the News</td>
</tr>
<tr>
<td>PR06.359</td>
<td>PR Practicum</td>
</tr>
<tr>
<td>PR06.360</td>
<td>PR/Adv Internship I</td>
</tr>
<tr>
<td>PR06.362</td>
<td>PR/Adv Internship II</td>
</tr>
<tr>
<td>PR06.364</td>
<td>PR/Adv Internship III</td>
</tr>
<tr>
<td>RTF03.220</td>
<td>The Television Industry</td>
</tr>
</tbody>
</table>

Other Requirements

- Total of two (2) Math/Science courses
- Total of two (2) History/Humanities/Language/Literature courses (must include one Literature)
- Total of two (2) Social & Behavioral Science courses

Free Electives

39 s.h.

Total Credits in Program

120 s.h.

BACHELOR OF ARTS IN ADVERTISING

General Education
All students must complete the University General Education requirements as described on page 31.

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33.

Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADV04.330</td>
<td>Introduction to Advertising</td>
</tr>
<tr>
<td>PR06.350</td>
<td>Introduction to Public Relations</td>
</tr>
<tr>
<td>PR06.310</td>
<td>Intro PR/Adv Research</td>
</tr>
<tr>
<td>ADV04.375</td>
<td>Advertising Copywriting</td>
</tr>
<tr>
<td>ADV04.421</td>
<td>Account Planning</td>
</tr>
<tr>
<td>or ADV04.420</td>
<td>Portfolio Preparation</td>
</tr>
<tr>
<td>JRN02.317</td>
<td>Publication Layout &amp; Design</td>
</tr>
<tr>
<td>PR06.355</td>
<td>PR/AD Law and Ethics</td>
</tr>
<tr>
<td>PR06.360</td>
<td>Integrated Marketing Communication</td>
</tr>
</tbody>
</table>
Department of Radio, Television and Film

Keith M. Brand
Chair
Bozorth Hall
856.256.4006
brandk@rowan.edu

The Department offers a Bachelor of Arts in Radio, Television and Film that prepares students for career opportunities in traditional and emerging media industries by covering a wide range of topics, including media production, business, history, and aesthetics. Students can select from two advising tracks within the major. The RTF Production track emphasizes media writing and production skills, while the RTF Critical Studies track emphasizes writing and research skills. Both tracks include a broad exploration of the history, business practice, and aesthetics of the media. Students completing either track receive a broad-based liberal arts education and a strong preparation for either media production or critical studies-related careers.

Outside of the classroom, learning continues as students are engaged in student clubs and organizations, including Cinema Workshop (16mm and digital filmmaking), The Rowan Television Network (the University's Cable Channel), and WGLS-FM (the University's radio station). In addition, the department offers juniors and seniors an extensive internship program that includes internships at businesses in the Philadelphia, New Jersey, and the New York Metropolitan areas.

BACHELOR OF ARTS IN RADIO, TELEVISION AND FILM

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33
**RADIO/TV/FILM CORE REQUIREMENTS**  
18 s.h.

- RTF03.270 Film History and Appreciation I (CCI)
- RTF03.205 TV History and Appreciation (CCI)
- RTF03.275 Applied Media Aesthetics (CCII or permission)
- RTF03.224 Sound Communication (CCII or permission)
- RTF03.370 Film Production I (Applied Media Aesthetics)
- RTF03.222 TV Production I (Applied Media Aesthetics)

**INDUSTRY CONVENTIONS**  
6 s.h.

Select 2 of the following courses:
- RTF03.220 The Television Industry (CCI)
- RTF03.221 The Radio Industry (CCI)
- RTF03.273 The Movie Industry (CCI)
- RTF03.295 Intro to New Media (CCII)

**MEDIA WRITING**  
6 s.h.

Select 2 of the following writing-based courses:
- RTF03.471 Techniques in Documentary Films, W.I. (Film 1, TV1, or permission)
- RTF03.393 Film Scenario, W.I. (75 s.h., CCII)
- RTF03.433 TV Program Packaging, W.I. (CCI, The Television Industry)
- RTF03.434 TV Program Packaging 2, W.I. (TV Program Packaging)
- RTF10.523 Graduate Screenwriting, W.I. (Senior & instructor permission)

**GENRE/MEDIUM STUDIES**  
3 s.h.

Select 1 of the following courses:
- RTF03.372 American Film Directors (CCII, 45 s.h.)
- RTF03.471 Techniques in Documentary Films, W.I. (Film 1, TV1, or permission)
- RTF03.371 Film History and Appreciation II (30 s.h.)
- RTF03.272 Images of Women in Film (30 s.h.)
- RTF03.340 Current Issues in Electronic Media (The Television Industry, 90 s.h.)
- RTF03.294 Contemporary International Cinema (CCI, CCII)
- RTF03.340 RTF Research & Criticism (CCI, CCII, 75 s.h.)
- RTF03.373 Film Noir (CCII, 45 s.h.)
- RTF03.266 TV History and Appreciation, 1960’s-70’s (CCII)
- CMS04.215 Fiction to Film (30 s.h.)

**RTF TRACKS**  
Choose to focus on courses from the Production Track bank OR the Critical Studies Track bank.

**PRODUCTION TRACK**  
12 s.h.

Select 4 of the following courses:
- RTF03.321 TV Production II (TV Production I, Sound Comm.)
- RTF03.371 Film Production II (Film Production I, Sound Comm.)
- RTF03.395 Sound Communication II (Media Aesthetics, Sound Comm.)
- RTF03.450 TV Documentary and Field Production (TV Production I, II, or permission)
- RTF03.470 Advanced Film Production (Film Prod. I, II; or permission)
- RTF03.394 New Media Production (Intro to New Media)
- RTF03.472 New Media Production II (New Media Production)
- RTF03.471 Techniques in Documentary Films, W.I. (Film 1, TV1, or permission)

**CRITICAL STUDIES TRACK**  
12 s.h.

Select 4 courses:
- RTF03.340 RTF Research & Criticism (CCI, CCII, 75 s.h.)
- RTF03.420 Current Issues in Electronic Media (The Television Industry, 90 s.h.)

and

Select any 2 additional courses from the Genre/Medium Studies course bank.

**Free Electives**  
33 s.h.

**Total Credits in Program**  
120-121 s.h.

---

**Department of Writing Arts**

Sanford Tweedie  
Chair  
Hawthorn Hall  
856.256.5223  
tweedie@rowan.edu

The Department of Writing Arts offers a variety of curricula, ranging from the First-Year Writing program to a Master of Arts in Writing. The department’s Bachelor of Arts in Writing Arts provides those with an interest in writing to pursue a 34-credit degree program, either as a primary or dual major. The latter group includes many who double major in Elementary Education or Early Childhood Education. In addition, the Department offers an accelerated BA/MA, a concentration in...
Creative Writing, a minor in Writing Arts, and a Liberal Studies Program B Sequence in Writing Arts. More information on all the programs is available at [http://www.rowan.edu/writingarts](http://www.rowan.edu/writingarts)

### Bachelor of Arts in Writing Arts

The Writing Arts major provides broad-based study and practice in written communication, drawing on the disciplinary strengths of the College of Communication and Creative Arts and from departments across the University. Writing Arts offers students intensive experience in a variety of writing forms, creative and expository, personal and public. Students learn how writers compose in print and new media forms and how audiences react to their writing. In classroom workshops and peer response groups, through lecture and discussion, and by creating and composing multiple drafts and revisions, students develop sensitivity to rhetorical considerations of audience, purpose, and text. Through these diverse experiences, students are prepared for success in a wide variety of writing settings beyond the University.

#### General Education

All students must complete the University General Education requirements as described on page 31

#### Rowan Experience

All students must complete the Rowan Experience requirements as described on page 33

#### Non-Program Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS04.250</td>
<td>Communication Theory</td>
</tr>
<tr>
<td>WA01.200</td>
<td>Introduction to Writing Arts</td>
</tr>
<tr>
<td>WA07.290</td>
<td>Creative Writing I or WA07.309 Writing Children's Stories</td>
</tr>
<tr>
<td>WA01.300</td>
<td>The Writer's Mind</td>
</tr>
<tr>
<td>WA01.301</td>
<td>Writing, Research, and Technology</td>
</tr>
<tr>
<td>WA01.405</td>
<td>Evaluating Writing</td>
</tr>
<tr>
<td>WA01.450</td>
<td>Writing Arts Portfolio Seminar [1 credit]</td>
</tr>
</tbody>
</table>

#### Major Requirements

<table>
<thead>
<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>CMS04.250</td>
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<tr>
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<td>Evaluating Writing</td>
</tr>
<tr>
<td>WA01.450</td>
<td>Writing Arts Portfolio Seminar [1 credit]</td>
</tr>
</tbody>
</table>

#### Related Electives

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CMS04.250</td>
<td>Communication Theory</td>
</tr>
<tr>
<td>WA01.200</td>
<td>Introduction to Writing Arts</td>
</tr>
<tr>
<td>WA07.291</td>
<td>Creative Writing II</td>
</tr>
<tr>
<td>WA07.309</td>
<td>Writing Children's Stories (not the one chosen in required courses)</td>
</tr>
<tr>
<td>WA07.315</td>
<td>Participatory Media</td>
</tr>
<tr>
<td>CMS04.290</td>
<td>Rhetorical Theory</td>
</tr>
<tr>
<td>JRN02.332</td>
<td>The Publishing Industry</td>
</tr>
<tr>
<td>RTF03.393</td>
<td>Film Scenario Writing</td>
</tr>
<tr>
<td>JRN02.335</td>
<td>Media Law</td>
</tr>
<tr>
<td>RTO3.275</td>
<td>Applied Media Aesthetics: Sight, Sound and Story</td>
</tr>
<tr>
<td>RTO3.295</td>
<td>Introduction to New Media</td>
</tr>
</tbody>
</table>

#### Writing Specialization

40 s.h.

You must choose 12 s.h. from any of the courses listed below. If you choose all 12 s.h. from one of the three specializations, that specialization will appear on your transcript. If you complete more than one specialization, you must take at least nine separate credits in each specialization. See [www.rowan.edu/wa](http://www.rowan.edu/wa) for advice on shaping the specialization.

#### Creative Writing

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA07.290</td>
<td>Creative Writing I or WA07.309 Writing Children's Stories</td>
</tr>
<tr>
<td>WA07.291</td>
<td>Creative Writing II</td>
</tr>
<tr>
<td>WA07.309</td>
<td>Writing Children's Stories (not the one chosen in required courses)</td>
</tr>
<tr>
<td>WA07.315</td>
<td>Participatory Media</td>
</tr>
<tr>
<td>CMS04.290</td>
<td>Rhetorical Theory</td>
</tr>
<tr>
<td>JRN02.332</td>
<td>The Publishing Industry</td>
</tr>
<tr>
<td>RTF03.393</td>
<td>Film Scenario Writing</td>
</tr>
</tbody>
</table>

#### Technical and Professional Writing

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA07.309</td>
<td>Writing Children's Stories (not the one chosen in required courses)</td>
</tr>
<tr>
<td>WA07.315</td>
<td>Participatory Media</td>
</tr>
<tr>
<td>CMS04.290</td>
<td>Rhetorical Theory</td>
</tr>
<tr>
<td>JRN02.332</td>
<td>The Publishing Industry</td>
</tr>
<tr>
<td>RTF03.393</td>
<td>Film Scenario Writing</td>
</tr>
</tbody>
</table>

#### New Media Writing and Publishing

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA07.315</td>
<td>Participatory Media</td>
</tr>
<tr>
<td>CMS04.215</td>
<td>Fiction to Film</td>
</tr>
<tr>
<td>CMS04.315</td>
<td>Participatory Media</td>
</tr>
<tr>
<td>JRN02.314</td>
<td>Photojournalism</td>
</tr>
<tr>
<td>JRN02.317</td>
<td>Publication Layout and Design</td>
</tr>
<tr>
<td>JRN02.321</td>
<td>Online Journalism I</td>
</tr>
<tr>
<td>JRN02.332</td>
<td>The Publishing Industry</td>
</tr>
<tr>
<td>JRN02.335</td>
<td>Media Law</td>
</tr>
<tr>
<td>RTO3.275</td>
<td>Applied Media Aesthetics: Sight, Sound and Story</td>
</tr>
<tr>
<td>RTO3.295</td>
<td>Introduction to New Media</td>
</tr>
</tbody>
</table>
Internship or Research Practicum  3 s.h.  

**Elements of Language**  
- **CMS04.225**  
- **CMS04.325**  
- **ENGL01.300**  
- **ANTH02.250**  
  or  
  Semantics  
  Linguistics  
  American English Grammar  
  Introduction to Anthropological Linguistics  

**Completion of second semester of 200-level foreign language**  
NOTE: Languages that offer this level course: Chinese, French, German, Italian, Russian, and Spanish. Also, while the requirement is 3 credits, other courses prior to this second semester 200-level course will likely be necessary.

**Other Requirements**  
- Total of three (3) Math/Science Courses  
- Total of four (4) History/Humanities/Language courses, one of which must be a History or Philosophy course.  
- Total of four (4) Social & Behavioral Science courses, one of which must be a Psychology course, and one of which must be a Sociology course.

**Free Electives**  43 s.h.  
**Total**  120-121 s.h.  

**MINOR IN WRITING ARTS**  
No matter what field one is preparing for, writing is likely to be integral to success within that area. The minor in Writing Arts provides interested students the opportunity to focus on improving their own writing and helping them to better understand and evaluate writing. Doing so complements interests in other areas and enhances one’s ability to communicate in a variety of subject areas.

The twenty-two hour minor in Writing Arts provides a streamlined version of the major in Writing Arts. Students complete many of the same required courses and other courses that parallel our related electives offerings.

**Required**  16 s.h.  
All courses are 3 s.h., except for Portfolio Seminar, which is 1 s.h.  

**Introductory Level Course**  6 s.h.  
- **WA01.200**  
  Introduction to Writing Arts  
- **Choose one**  3 s.h.  
  - **WA07.290**  
  - **WA07.309**  
  Creative Writing I  
  Writing Children's Stories  

**Advanced Level Courses**  6 s.h.  
- **WA01.300**  
  The Writer’s Mind  
- **WA01.301**  
  Writing, Research, & Technology  

**Senior Level Capstone Courses**  4 s.h.  
- **WA01.450**  
  Senior Seminar: Evaluating Writing  
- **WA01.405**  
  Portfolio Seminar  

**Electives**  6 s.h.  
- **Choose any two**  6 s.h.  
  - **WA01.302**  
  Intro to Technical Writing  
  - **WA01.304**  
  Writing with Style  
  - **WA01.400**  
  Writing for the Workplace  
  - **WA01.409**  
  Tutoring Writing  
  - **WA01.500**  
  Creative Writing I, if not taken above  
  - **WA01.501**  
  Creative Writing II  
  - **WA07.309**  
  Writing Children’s Stories, if not taken above  
  - **WA07.391**  
  Writing Fiction  
  - **WA07.395**  
  Writing Poetry  
  - **RTF03.393**  
  Film Scenario Writing  
  - **CMS04.325**  
  Linguistics  
  - **ENGL01.301**  
  American English Grammar  
  - **JRN02.312**  
  Magazine Article Writing  

**ACCELERATED BA IN WRITING ARTS/MA IN WRITING**  
The accelerated BA in Writing Arts/MA in Writing allows exceptional, highly motivated students to complete the department’s bachelors and masters degrees in five years rather than the normal six. In this “4+1” program, students begin taking graduate courses during their senior year, advancing their graduate studies while still at the undergraduate level and while paying undergraduate tuition and fees. Twelve graduate credits are applied to both the undergraduate and graduate requirements under this dual degree program.

Application procedures and further information are available at: [http://www.rowan.edu/writingarts](http://www.rowan.edu/writingarts)
CREATIVE WRITING CONCENTRATION
The Writing Arts Department at Rowan University offers a program of study in creative writing leading to a concentration. To fulfill the requirements for the concentration, students must complete 18 hours of approved course work selected from a variety of courses in the writing of poetry, fiction, plays, television and film scenarios, and children's stories. The sequence begins with the introductory courses, Creative Writing I and Creative Writing II, which provide a basic knowledge of the techniques involved in crafting poems, short stories, and plays. Students need at least a B in these courses to pursue a concentration. After completing the introductory courses, students are required to consult with an advisor who will help them design the rest of their concentration. Students who do not wish a formal concentration but who are interested in developing as writers are also invited to take other creative writing courses.

Once enrolled in the Creative Writing Concentration, students can look forward to these goals and achievements:

- Increased awareness of the various modes and genres of literary expression
- More sophisticated appreciation of the strategies and the elements of craft in creative writing
- Greater sensitivity to language and its powers developed through close readings of texts
- Deepened understanding of the relationship among the writer, the audience, and the work
- A more definite sense of students' own literary voice and style

Creative Writing Concentration Requirements
To complete the Concentration in Creative Writing, students must complete 18 hours of coursework selected from the following list:

- WA07.290 Creative Writing I
- WA07.291 Creative Writing II
- WA07.309 Writing Children’s Stories
- WA07.391 Writing Fiction
- WA07.395 Writing Poetry
- WA01.300 The Writer’s Mind
- WA01.320 Internship in Writing Arts
- RTF03.393 Film Scenario Writing
- JRN02.313 Magazine Article Writing

Students can also receive credit for selected special topic courses such as Writing the Graphic Novel.

It is also possible for students to take the following graduate classes in creative writing in accordance with the senior privilege policy:

- MAWR01.558 Fiction Workshop
- MAWR02.505 Poetry Workshop
- MAWR02.515 Creative Non-fiction Workshop
- MAWR02.520 Writing the Novel
- MAWR02.523 Writing the Memoir

(Graduate course descriptions can be viewed in the graduate catalog.)
College of Education

Monika Williams Shealey, Ph.D.
Dean
Herman D. James Hall
856.256.4751
shealey@rowan.edu

Rihab Saadeddine, Ed.D.
Assistant Dean for Assessment and Technology
Herman D. James Hall
856.256.4753
saadeddine@rowan.edu

Ann Tiao, Ph.D.
Assistant Dean for Research and Graduate Education
Herman D. James Hall
856.256.4753
tiao@rowan.edu

Mission
The College of Education’s primary mission is to ensure that faculty and undergraduate and graduate candidates develop the knowledge, skills, and dispositions needed to foster academic achievement, social responsibility, personal responsibility, and social justice in themselves so that they can, in turn, facilitate high achievement in P-16 learners. Our programs provide an intellectually rigorous and challenging environment for all candidates. Built upon a liberal education, the College’s programs combine the study of research, theory, and wisdom of practice in diverse settings with a variety of opportunities to apply knowledge, skills and dispositions to practice.

Goals
Rowan University has an historic and unwavering commitment to preparing candidates, educators, and other professionals who will demonstrate the knowledge, skills, and dispositions indicative of the potential for outstanding success in their future careers. "The Learning Community in Action" is the conceptual framework for all programs in the College of Education at Rowan University. Therefore, the College of Education strives to model learning community principles for both initial and advanced candidates who will in turn create learning communities in their professional positions. Candidate performances are measured according to the knowledge, skills and dispositions defined in the Conceptual Framework as developed in response to appropriate national and/or state standards.

Programs Offered
The College of Education offers the BA in Education (Early Childhood, Elementary, Subject-Matter, and Health and Physical Education specializations); BA in Athletic Training; and BA in Health Promotion Fitness Management. The College of Education also offers non-degree teacher certification programs in Reading and Teacher of Students with Disabilities as well as numerous graduate programs.
In addition, the Minor in Education is offered and the BA in Liberal Studies: Literacy Studies (in collaboration with the English Department and the Department of Writing Arts).

Accreditation
Rowan University’s teacher education program, one of the largest and most comprehensive in New Jersey and in the nation, has been accredited by the National Council for Accreditation of Teacher Education (NCATE) since 1956. In addition, College of Education programs have received National Recognition from the following professional organizations that are aligned with NCATE:
- ACEI Association for Childhood Education International
- ACTFL American Council on the Teaching of Foreign Languages
- CEC Council for Exceptional Children
- ELCC Educational Leadership Constituent Council
- IRA International Reading Association
- NAEYC National Association for the Education of Young Children
- NASP National Association of School Psychologists
- NASPE National Association for Sport and Physical Education.
- NCSS National Council for the Social Studies
- NCTE National Council of Teachers of English
- NCTM National Council of Teachers of Mathematics
- NSTA National Science Teachers Association
In addition, the M.A. in Counseling in Educational Settings program is accredited by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The B.S. in Athletic Training program is accredited by the Commission on Accreditation of Athletic Training Education (CAA TE).

The New Jersey State Department of Education also approves Rowan’s programs.

**Admission, Retention and Eligibility for Teacher Certification**

Admission to Rowan University does not guarantee admission as a teacher certification candidate. Students desiring admission as a teacher certification candidate must file an application. Admission to teaching certification programs is at Benchmark1 and has specific program requirements as outlined on Program Guides. Students are notified of their acceptance at the beginning of their junior year. The same process applies to two-year transfer students, but is generally compressed to take place in the fall semester of the junior year.

This outline describes the minimum college requirements. Students should check with their advisors and certifying department for specific expectations, program requirements and standards.

**Support Services**

In addition to the academic departments, the College of Education houses several offices that support the academic program including:

**Office of Field Experiences**

The Office of Field Experiences coordinates all field placements, including school or clinical settings required for graduation and state certification applications. The mission of the College of Education is to prepare educators to transform classrooms and schools into learning communities that foster academic achievement, social responsibility, personal responsibility and social justice. The Office of Field Experiences is located in the College of Education Advising Center in Herman D. James Hall, 2nd floor. Hours are 8:30 a.m. to 4:30 p.m., Monday through Friday.

**The College of Education Advising Center (CEAC)**

CEAC the College of Education Advising Center provides students with the necessary support and guidance as they pursue their educational goals and courses through the College of Education. It is a resource that offers program advisement for current and prospective students. The center is focused on providing accurate and timely information to assist students who are working toward a degree and/or licensure in a number of professional education careers.

**The John J. Schaub Instructional Technology Center** consists of a Computer Laboratory and an Instructional Materials Center (IMC). The Instructional Technology Center provides facilities, technology, materials and training in the four areas of Instructional Technology: print technology, audio-visual technology, computer technology, and integrated technology. It is the primary instructional technology resource and training facility for students and faculty in the College of Education. The IMC houses PreK-12 teaching kits and other materials related to the educational programs offered by College. It is a comfortable study space that serves as a teachers’ library and workroom for students in the College of Education. The IMC's catalog can be accessed here.

**Department of Educational Services and Leadership**

MaryBeth Walpole, Ph.D.
Chair
Herman D. James Hall
856.256.4706
walpole@rowan.edu

The Department of Educational Services and Leadership offers post-baccalaureate and graduate programs that provide students with the knowledge, skills, and dispositions to bring about transformative leadership and change that promote highly effective educational institutions. The department is organized around what educational leaders and practitioners need to know and be able to do in order to foster learning organizations that are responsive to societal needs and demands regarding P-16 education. To this end students can enroll in programs that lead to a doctorate in educational leadership and master's degree and/or certificate programs in school counseling, school psychology, school nursing, school administration, school supervision, and higher education administration and instruction. We offer a variety of modalities in our course offerings including accelerated programs, online and hybrid programs, as well as traditional on-campus classes. All of our programs are approved by the New Jersey Department of Education and the National Council for the Accreditation of Teacher Education (NCATE). In addition, the school psychology program is approved by the National Association of
School Psychologists (NASP), and the school counseling program is approved by the Council for Accreditation of Counseling and Related Educational Programs (CACREP). The Department is housed in the College of Education and is located in James Hall. The Department's faculty is mindful of adult learning needs and seeks to engage students academically, professionally and personally. We look forward to reviewing your application and providing you with the necessary information that will assist you in making an informed decision regarding your professional plans.

**Special Education Requirements for All Teacher Certification Candidates**

Candidates for Teacher Certification are required to have coursework in special education. All candidates are required to take the following course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 08.130</td>
<td>Human Exceptionality</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

All candidates (with exception of those in Early Childhood program) take the following course:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 08.316</td>
<td>Differentiated Instruction in the Inclusive Classroom</td>
<td>2 s.h.</td>
</tr>
</tbody>
</table>

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**BACHELOR OF ARTS IN LIBERAL STUDIES WITH A SPECIALIZATION IN LITERACY STUDIES**

Xiufang Chen  
Program Coordinator  
Herman D. James Hall  
856.256.4500 x.3835  
chen@rowan.edu

**Elementary Education Track**

Christina Davidson-Tucci  
Program Advisor  
Herman D. James Hall  
856.256.4420  
davidson@rowan.edu

April Ellerbe  
Program Advisor  
Herman D. James Hall  
856.256.4420  
ellerbe@rowan.edu

**Early Childhood Education Track**

Lori Block  
Program Advisor  
Herman D. James Hall  
856.256.4420  
block@rowan.edu

The Language, Literacy, and Special Education Department offers two tracks for the Liberal Studies with a Specialization in Literacy Studies at the Baccalaureate level. One is open to Elementary Education majors and another to Early Childhood Education majors. There is an Elementary Education track offered at the Camden campus for those interested in an urban-focused curriculum and experience. Students must meet University admission requirements and declare the Liberal Studies with a Specialization in Literacy Studies track. Acceptance into the certification programs and passing grade on Praxis I tests (Mathematics, Reading, & Writing) are required. To graduate, candidates must achieve minimum content area GPA of 3.0 and achieve an overall GPA of at least 3.0. Required courses are listed below.

**General Education**

All students must complete the University General Education requirements as described on page 31

**Rowan Experience**

All students must complete the Rowan Experience Requirements as described on page 33

**Program Requirements:**

General Education/Rowan Experience/Liberal Studies 55 s.h.

Core Required Courses 34 s.h.

Required Courses for Elementary Education Majors 33 s.h.

Required Courses for Early Childhood Education Majors 38 s.h.

Total Semester Hours 122 s.h. (for Elementary Education Majors)

Total Semester Hours 127 s.h. (for Early Childhood Education Majors)

**Core Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ 30.350</td>
<td>Using Children's Literature in the Reading/Writing Classroom</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>
Department of Teacher Education

(Primary Childhood Education, Elementary Education, K-12 Subject Matter Education)

Issam Abi-El-Mona  
Chair  
Herman D. James Hall  
856.256.4736  
abi-el-mona@rowan.edu

"Teachers are more than any other class the guardians of civilization." - Bertrand Russell, British Philosopher and Writer

The Department of Teacher Education proudly offers a variety of opportunities for caring, academically focused, and dedicated undergraduate and graduate students to pursue certification as early childhood, elementary, or K-12 subject-matter teachers and engage with others committed to being and becoming scholars of education. In addition, the department offers the required foundations of education courses that provide a basis for all teacher education programs in the College of Education, graduate courses in the area of curriculum to support various graduate programs in the College of Education, Certificate of Graduate Study in Educational Technology, which can be used as a component of the M.Ed. in Teacher Leadership, and Certificate of Graduate Study in ESL. The department also provides General Education courses in support of the entire university population. We are committed to fostering our students' growth as instructional leaders who have a developmental perspective, cooperative disposition, and reflective orientation. Our nationally accredited undergraduate and graduate programs recognize the impact that teachers have on the future. Our undergraduate and MST programs are designed for students seeking in-depth preparation to teach in P-12 classrooms and New Jersey teaching endorsements in grades P-3, K-5, and K-12 Subject-Matter. Our M.Ed. in Teacher Leadership is designed for in-service teachers who wish to expand their studies of teaching and learning. Program guides for each major and program are available in the Teacher Education office on the third floor of Education Hall or on our web page: http://www.rowan.edu/education/programs/teachered/

Department of Language, Literacy, and Special Education

S. Jay Kuder  
Chair  
Herman D. James Hall  
856.256.5659  
kuder@rowan.edu

The Department of Language, Literacy, and Special Education includes the programs in reading and special education. The department offers many opportunities for individuals interested in pursuing an exciting and fulfilling career in an educational setting. We have a highly qualified faculty that seeks to maximize your educational experience at Rowan University. Our programs are nationally accredited by NCATE (National Council for the Accreditation of Teacher Education) as well as other relevant professional organizations. All of our programs are approved by the New Jersey Department of Education.

The department offers the required reading and special education courses for all undergraduate teacher education programs. In addition, the department offers an undergraduate endorsement program which leads to a Teacher of Reading Certificate and Post-Baccalaureate and Graduate level endorsement programs that lead to the certificate as a Teacher of Students with Disabilities. The department also offers graduate programs in Reading Education, Learning Disabilities, and Special Education.

Reading Requirements for Reading Endorsement Candidates

Course are determined by specific certification program requirements  
Students should consult certification program advisors.

Teacher of Reading Endorsement for Elementary Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ30.280</td>
<td>Teaching Literacy</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.351</td>
<td>Differentiated Literacy Instruction</td>
<td>2 s.h.</td>
</tr>
</tbody>
</table>
## College of Education

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ELEM02.338</td>
<td>Practicum in Mathematics &amp; Literacy</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>READ30.347</td>
<td>Phonics and Spelling Instruction</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.350</td>
<td>Using Children's Literature in the Reading/Writing Classroom</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.421</td>
<td>School Reading Problems</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>READ30.451</td>
<td>Supervised Clinical Practice</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

### Teacher of Reading Endorsement for Early Childhood Majors

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ30.320</td>
<td>Language Development and Emergent Literacy</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>READ30.351</td>
<td>Differentiated Literacy Instruction</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>READ30.347</td>
<td>Phonics and Spelling Instruction</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.350</td>
<td>Using Children's Literature in the Reading/Writing Classroom</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.421</td>
<td>School Reading Problems</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>READ30.451</td>
<td>Supervised Clinical Practice</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

### Teacher of Reading Endorsement for Subject Matter Majors

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ30.280</td>
<td>Teaching Literacy</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.319</td>
<td>Teaching Reading and Writing in the Content Areas</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.347</td>
<td>Phonics and Spelling Instruction</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.350</td>
<td>Using Children's Literature in the Reading/Writing Classroom</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.421</td>
<td>School Reading Problems</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>READ30.451</td>
<td>Supervised Clinical Practice</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

### Post Baccalaureate Program in Reading

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ30.515</td>
<td>Teaching Reading and Writing Across the Grades</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.520</td>
<td>Content Area Literacy</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.530</td>
<td>Teaching Reading to Exceptioned Child</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.535</td>
<td>Word Study: Phonics, Spelling and Vocabulary Instruction</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.545</td>
<td>Using Multicultural Literature in the K – 12 Classroom</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.550</td>
<td>Diagnosis of Remedial Reading Problems</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>&amp; READ30.560</td>
<td>Correction of Remedial Reading Problems</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.570</td>
<td>Clinical Experiences in Reading</td>
<td>6 s.h.</td>
</tr>
</tbody>
</table>

### TEACHER OF READING ENDORSEMENT PROGRAM and POST BACCALAUREATE PROGRAM FOR TEACHER OF READING

#### Susan Browne
Advisor

**Language Literacy and Special Education Department**

**Herman D. James Hall**

**856.256.4500, EXT 3830**

**brownes@rowan.edu**

These programs fulfill the requirements for state of New Jersey certification as a Teacher of Reading. Students learn how to link assessment procedures with diagnostic teaching and corrective instructional strategies. Reading certification is granted only when a student has fulfilled all requirements for a major teaching certificate. To matriculate, students must complete an introductory reading course and satisfy the requirements listed below.

The program requires students to successfully complete 30 semester hours of coursework in reading and reading-related areas to obtain Teacher of Reading Certification. Students may fulfill the requirement for New Jersey Teacher of Reading Endorsement with undergraduate coursework, graduate coursework, or a combination of the two.

#### Admissions Requirements

The Teacher of Reading Endorsement Program is available to students who are currently enrolled in the BA in Education. The Post Baccalaureate Program in Reading is available to students who already hold New Jersey teaching certificates (CEAS or Standard).

Additional admissions criteria include:

- An overall GPA of 3.0 based on 30 semester hours of coursework
- Completion of Teaching Literacy or its approved equivalent
- A 3.0 GPA in reading courses completed prior to application
- Completion of an Application form with Passing Essay

#### Program Requirements

To complete the program, students must have an overall GPA of 3.0 based on 30 semester hours of coursework and pass the PRAXIS II Specialty Area Test, Introduction to the Teaching of Reading (also a New Jersey certification requirement).

#### Course Requirements

**Reading Theory and Pedagogy**

**Undergraduate**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>READ30.280</td>
<td>Teaching Literacy (Elementary Education)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
</tr>
<tr>
<td>------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>---------</td>
</tr>
<tr>
<td>READ30.319</td>
<td>Teaching Reading and Writing in the Content Area (For Subject Matter Education)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.320</td>
<td>Language Development and Emergent Literacy (For Early Childhood Education)</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>READ30.351</td>
<td>Differentiated Literacy Instruction (For Elementary)</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>and ELEM02.338</td>
<td>Practicum in Mathematics and Literacy (For Elementary and Early Childhood Education)</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>READ30.347</td>
<td>Phonics and Spelling</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.350</td>
<td>Using Children’s Literature in the Reading/Writing Classroom</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or Post Baccalaureate (Graduate Course Options)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>READ30.515</td>
<td>Teaching Reading and Writing Across the Grades</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.545</td>
<td>Using Multicultural Literature in the K-12 Reading and Writing Classroom</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.520</td>
<td>Content Area Literacy</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.530</td>
<td>Teaching Reading to the Exceptional Child</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.535</td>
<td>Word Study: Phonics, Spelling, and Vocabulary Instruction</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Application through Tutoring</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>READ30.421</td>
<td>School Reading Problems</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>READ30.451</td>
<td>Supervised Clinical Practice</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or Post Baccalaureate (Graduate Course Options)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>READ30.550</td>
<td>Diagnosis of Remedial Reading Problems</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.560</td>
<td>Correction of Remedial Reading Problems</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.570</td>
<td>Clinical Experiences in Reading</td>
<td>6 s.h.</td>
</tr>
<tr>
<td>Core/Supporting Courses</td>
<td></td>
<td>12 s.h.</td>
</tr>
<tr>
<td>FNDS21.230</td>
<td>Characteristics of Knowledge Acquisition</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>SPED08.130</td>
<td>Human Exceptionality</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.120</td>
<td>Literacies in Today's World</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EDUC01.272</td>
<td>Teaching in Learning Communities II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>SECD03.350</td>
<td>Teaching Students of Linguistic and Cultural Diversity</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>PSY22.512</td>
<td>Educational Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY22.586</td>
<td>Psychology of Motivation and Learning</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>WA01.401</td>
<td>Writer's Mind</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

*Descriptions for courses at the 500-level can be found in the Graduate Catalog.

### TEACHER OF STUDENTS WITH DISABILITIES ENDORSEMENT

Nanci Paparo  
Program Coordinator  
Herman D. James Hall  
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Aimee Burgin  
Program Advisor  
Herman D. James Hall  
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burgin@rowan.edu

The Language, Literacy, and Special Education Department offers two routes for the Teacher of Students with Disabilities Endorsement at the Post-Baccalaureate level. The first is the Blended Track open to students currently enrolled in one of the College of Education’s initial teacher endorsement programs. The second is the Alternate Route Track, open to individuals who currently hold a Bachelor degree and are eligible for a certification of eligibility (CE) in Elementary Education or appropriate Content Area. Teacher of Students with Disabilities certification is granted only when a student has fulfilled all requirements for an initial teaching certification.

To matriculate, students must complete the prerequisite Human Exceptionality course (SPED08.130), with a minimum grade of B and have an overall GPA of at least 2.75 (based on 30 semester hours). The program requires students to successfully complete 27 semester hours of coursework in special education and special education-related areas to obtain the Teacher of Students with Disabilities Certification. Required courses are listed below. Students who are admitted to the Early Childhood Education program should consult with their advisors regarding specific requirements.

### Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED08.130</td>
<td>Human Exceptionality (Prerequisite for program entry)</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>
SPED08.360  Positive Behavioral Support Systems for Students with Exceptional Learning Needs  3 s.h.
SPED08.316  Differentiated Instruction in the Inclusive Classroom  2 s.h.
READ30.280  Teaching Literacy  3 s.h.
READ30.351  Differentiated Literacy Instruction  2 s.h.
SPED08.308  Assistive Technology and Transition Planning  3 s.h.
SPED08.307  Assessment of Students with Exceptional Learning Needs  3 s.h.
SPED08.415  Specialized Instruction for Students with Exceptional Learning Needs  3 s.h.
SPED08.445  Clinical Seminar in Special Education  1 s.h.
SPED08.450  Clinical Practice in Special Education  4 s.h.

Note: Candidates for the Teacher of Students with Disabilities Certification must pass the Praxis II Specialty Area Test: Application of Core Principles across Categories of Disabilities (0354) prior to admission to Clinical Seminar/Clinical Practice.

BACHELOR OF ARTS IN EDUCATION, SPECIALIZATION IN EARLY CHILDHOOD EDUCATION
Lori Block, PHR
Herman D. James Hall
856.256.4740
block@rowan.edu

The B.A. in Education, with Specialization in Early Childhood Education has four required strands of study: 1) General Education courses, 2) Rowan Experience courses, 3) the Professional Specialization Sequence, and 4) the dual major requirements, where Early Childhood Education Specialization candidates are required to complete major requirements in one of four academic disciplines: American Studies, Liberal Studies: Humanities/Social Sciences [with restriction], Liberal Studies: Literacy Studies or Writing Arts approved by the University for certification.

Students accepted into the Specialization are expected to adhere to the prescribed sequence of courses and to consult with their advisors in Education at least once a semester. Early Childhood courses may not be offered every semester.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience Requirements as described on page 33

Required Courses
SPED08.130  Human Exceptionality  3 s.h.
PSY09.209  Child Development  3 s.h.
ART09.110  Experiencing Art  3 s.h.
or
MATH01.201  Structures of Mathematics I  3 s.h.
MATH01.301  Structures of Mathematics II  3 s.h.
FNDS21.150  History of American Education  3 s.h.
FNDS21.230  Characteristics of Knowledge Acquisition  3 s.h.
PHED35.103  Health and Wellness  3 s.h.
EDUC01.270  Teaching in Learning Communities I  3 s.h.
ECED23.220  Teaching in Learning Communities II: Early Childhood Education  3 s.h.
SMED33.420  Educational Technology  1 s.h.
READ30.320  Language Development: Emergent Literacy  4 s.h.
ECED23.320  Growth and Learning: Birth - 5 years  3 s.h.
ECED23.321  Growth and Learning K - 3rd Grade  3 s.h.
ECED23.322  Integrating and Adapting Curriculum: Math/Science  3 s.h.
ECED23.430  Observation, Assessment, and Evaluation of Diverse Learners  3 s.h.
ECED23.431  Planning Curriculum: Across the Content  3 s.h.
ECED23.446  Clinical Practice in Early Childhood Education  10 s.h.
ECED23.447  Early Childhood Education Clinical Seminar  1 s.h.
SECD03.350  Teaching Students of Linguistic and Cultural Diversity  1 s.h.
*Lab Science (Bio or Physical)  4 s.h.
*Non-Lab Science (Bio or Physical)  3 s.h.
Geography (any)  3 s.h.
History (any)  3 s.h.
Sociology (any) (Sociology of the Family Strongly Recommended)  3 s.h.
COMP01.111  College Composition I  3 s.h.
COMP01.112  College Composition II  3 s.h.
CMS04.205  Public Speaking  3 s.h.
General Education Literature  3 s.h.
The B.A. in Education, with Specialization in Elementary Education has four required strands of study: 1) General Education courses, 2) Core Education courses, 3) the Professional Specialization Sequence, and 4) the dual major requirements, where Elementary Education Specialization candidates are required to complete major requirements in one of eleven certification-eligible dual majors approved by the University. Students accepted into the Specialization are expected to adhere to the prescribed sequence of courses and to consult with their advisors in Education at least once a semester.

**General Education**
All students must complete the University General Education requirements as described on page 31

**Rowan Experience**
All students must complete the Rowan Experience Requirements as described on page 33

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>COMP01.111</td>
<td>College Composition I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>COMP01.112</td>
<td>College Composition II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CMS04.205</td>
<td>Public Speaking</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>MATH01.301</td>
<td>Structures of Mathematics II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>SPED08.130</td>
<td>Human Exceptionality</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY09.209</td>
<td>Child Development</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>MATH01.201</td>
<td>Structures of Mathematics I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>FND921.230</td>
<td>Characteristics of Knowledge Acquisition</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HIST05.150</td>
<td>History of American Education</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.103</td>
<td>Health and Wellness</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EDUC01.270</td>
<td>Teaching in Learning Communities I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EDUC01.272</td>
<td>Teaching in Learning Communities II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>SMED33.420</td>
<td>Educational Technology</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>READ30.280</td>
<td>Teaching Literacy</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ELEM02.319</td>
<td>Curriculum and Assessment in the Elementary Classroom</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>SPED08.316</td>
<td>Differentiated Instruction in the Inclusive Classroom</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ELEM02.336</td>
<td>Mathematics Pedagogy for Elementary Teachers</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ELEM02.338</td>
<td>Practicum in Mathematics and Literacy</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>READ30.351</td>
<td>Differentiated Literacy Instruction</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ELEM02.448</td>
<td>Clinical Practice in Elementary Education</td>
<td>10 s.h.</td>
</tr>
<tr>
<td>ELEM02.445</td>
<td>Elementary Education Clinical Seminar</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>SECD03.350</td>
<td>Teaching Students of Linguistic and Cultural Diversity</td>
<td>1 s.h.</td>
</tr>
<tr>
<td></td>
<td>Lab Science (Biological or Physical*)</td>
<td>4 s.h.</td>
</tr>
<tr>
<td></td>
<td>Science (Biological or Physical*)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td></td>
<td>Geography (any)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td></td>
<td>U.S. History (any)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td></td>
<td>Sociology (any)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td></td>
<td>Literature (any General Education)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td></td>
<td>Artistic and Creative Experience Elective</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

*For certification purposes, candidates must complete both a Biological and Physical Science course (one must be a 4 SH Lab).

**Total Semester Hours**

121 s.h.

**Dual Major Requirements**
Elementary Education majors may choose one of the following dual majors:

- American Studies
- Chemistry
- English
- Geography
- History
The B.A. in Education, with Specialization in K-12 Subject-Matter Education has four required strands of study:
1. General Education courses
2. Common Education Core courses
3. Professional Specialization Sequence
4. Dual major requirements, where K-12 Subject-Matter Education Specialization candidates are required to complete major requirements in one of eleven academic disciplines approved by the University for Certification.

In keeping with the College of Education's overarching focus on the theme of "learning community," faculty in Subject-Matter Education strive to transcend traditional rote forms of learning and model a more collaborative, interactive, and intellectually challenging pedagogy that is true to the richness and rigor of the academic disciplines they represent. As teacher candidates experience and participate in such learning environments in their Subject-Matter Education classes at Rowan, they develop the commitment, confidence, and ability to go into the field and create K-12 classroom environments in which students work actively with the teacher and with each other to investigate important and meaningful ideas in a particular academic discipline.

Admission to Rowan University does not guarantee admission to the Subject-Matter Education Program. For most majors, we are able to admit all qualified students but there is a cap each year. A minimum number of credits in the subject major must be completed satisfactorily prior to admission to junior-level courses and practica. Admission to English and Social Studies is highly competitive and based on GPA.

**General Education**
All students must complete the University General Education requirements as described on page 31.

**Rowan Experience**
All students must complete the Rowan Experience Requirements as described on page 33.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED08.130</td>
<td>Human Exceptionality</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY09.210</td>
<td>Adolescent Development</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>FNDS21.230</td>
<td>Characteristics of Knowledge Acquisition</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>FNDS21.130</td>
<td>History of American Education</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.103</td>
<td>Health and Wellness or Biology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EDUC201.270</td>
<td>Teaching in Learning Communities I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EDUC201.272</td>
<td>Teaching in Learning Communities II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ30.319</td>
<td>Reading and Writing in the Content Area</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>SPED08.316</td>
<td>Differentiated Instruction in the Inclusive Classroom</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>SMED31.350</td>
<td>Elementary Art Methods: Teaching and Learning A: Art</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or SMED32.329</td>
<td>Teaching and Learning Music A: Elementary General Music</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or SMED33.330</td>
<td>Teaching and Learning A: Mathematics</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or SMED34.330</td>
<td>Teaching and Learning A: Science</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or SMED35.330</td>
<td>Teaching and Learning A: English/Language Arts</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or SMED35.330</td>
<td>Teaching and Learning A: Foreign Language (Spanish)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or SMED32.330</td>
<td>Teaching and Learning A: Social Studies</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>SECD03.330</td>
<td>Practicum Teaching and Learning A: Content Area</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>SMED35.420</td>
<td>Educational Technology</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>SMED31.360</td>
<td>Secondary Art Methods: Teaching and Learning B: Art</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>
The major goals of the Minor in Education are three-fold:

1. Create an avenue for students at Rowan who have an interest in Education but do not want to complete a full BA in Education. This work will be noted on their transcripts as a Minor.

2. Create an avenue for Internal/External Transfer Candidates (for P-3, K-5, and K-12 Subject-Matter) to complete a Minor rather than spending a minimum of 5 additional semesters to complete the Major in Education. Candidates who
are not currently Education majors but who are interested in becoming Early Childhood (P-3), Elementary (K-5) or Subject-Matter (K-12) Education majors via the internal transfer process;

3. Create an avenue for students who leave the program having completed most, if not all, of the courses in the proposed major including all required courses for the minor, to have an official designation for their work in Education.

**Required courses for Minor in Education**

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPED 08.130</td>
<td>Human Exceptionality (Gen Ed)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EDUC 01.270</td>
<td>Teaching in Learning Communities I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EDUC 01.272</td>
<td>Teaching in Learning Communities II (or equivalent)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ 30.280</td>
<td>Teaching Literacy (Elementary Education)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>READ 30.319</td>
<td>Teaching Reading and Writing in the Content Area (Subject Matter Education)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>SMED 33.420</td>
<td>Educational Technology</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>FNDS 21.230</td>
<td>Characteristics of Knowledge Acquisition</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>FNDS 21.150</td>
<td>History of American Education</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY 09.209</td>
<td>Child Development (P-3 or K-5)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or PSY 09.210</td>
<td>Adolescent Development (K-12)</td>
<td></td>
</tr>
</tbody>
</table>

**Total Semester Hours** 25 s.h.
College of Engineering

Anthony Lowman, Ph.D.
Dean
Henry M. Rowan Hall
856.256.5300
lowman@rowan.edu

Steven Chin, Ph.D., P.E.
Associate Dean
Henry M. Rowan Hall
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Mission
The mission of the College of Engineering is to provide programs that are effectively responsive to regional aspirations and that address the needs and the changing characteristics of the leading-edge engineers of the future. The College aims to educate students prepared to apply technology for the betterment of society and to serve as global change agents for the future. Rowan University also recognizes that the College of Engineering will aid in the economic and cultural development of southern New Jersey, while generating opportunities for its diverse graduates in local, national and international industries.

Objectives
The objectives of the undergraduate engineering programs are to enable students to:

- Understand and apply the core science and mathematics principles that form the basis of engineering disciplines
- Work individually and in teams to identify and solve complex engineering problems and develop an understanding of interdisciplinary problem solving
- Understand and apply advanced technology (computers and laboratory equipment) to solve complex engineering problems
- Understand the importance of the humanities and social sciences as part of a well rounded education and the practice of engineering
- Have a strong sense of the importance of ethics in an engineering setting as well as other aspects of their lives
- Develop communication skills so that they can perform engineering functions effectively

Accreditation
Chemical, Civil, Electrical & Computer, and Mechanical are ABET accredited. ABET is a professional accrediting organization that is nationally recognized by the Council on Higher Education Accreditation (CHEA). In cooperation with its associated professional and technical societies, ABET has developed criteria, or standards, for the evaluation of educational programs.

The criteria require that the programs demonstrate that graduates have mastered the knowledge and skills required and that the institution has in place a process for continuous improvement. The Engineering Accreditation Commission (EAC) of ABET administers the criteria, conducts the evaluations and accredits the programs.

Programs Offered
The College of Engineering has five programs leading to bachelor of science degrees in biomedical, chemical, civil, electrical & computer, and mechanical engineering. A concentration in bioengineering is available, which allows students to study this broad and interdisciplinary field related to areas of established and emerging biotechnologies and biosciences. A GPA in the major of 2.0 or greater is required for graduation from all undergraduate programs. The undergraduate programs include technology focus areas throughout the curricula. The technology areas are monitored continuously to maintain a leading edge as technology advances. The flexibility inherent in this approach allows the College to respond quickly to changes in technology, and to be responsive to the needs of students, the region, industry, and the profession.

Core Requirements
All Engineering undergraduate students take a common core of courses within the Freshman year. These courses are:

- Freshman Engineering Clinic I, II (Rowan Seminar experience is embedded in Fr Clinic I)
- College Composition I
- Accelerated Calculus I, II
- Introductory Mechanics
- Advanced College Chemistry I
- Computer Science (see major requirements for specific course)
Department of Biomedical Engineering

Henry M. Rowan Hall
856.256.5300

Biomedical engineering is at the intersection of medicine and biology, with the focus on the improvement of heath care systems. Rowan’s BME program will educate its students to analyze and design innovative solutions, with the goal of improving the quality and effectiveness of patient care. The BME program features a hands-on, real world, project-based curriculum that has proven successful in developing the engineer of the future, and will prepare students to contribute to health care solutions in an increasingly multidisciplinary environment.

Mission and Goals

Rowan’s Biomedical Engineering program will provide students with a firm grounding in the life sciences, along with a solid background in the traditional engineering disciplines. Graduates of the program will possess the skills necessary to develop and design health care systems, have the knowledge to pursue further studies in medical school, and be able to contribute as a practicing engineer in a myriad of other professions.

Rowan BME Program Educational Objectives

Program educational objectives are broad and long term career accomplishments our students are expected to achieve within a few years of graduation. Through a rigorous program of study featuring continuous and increasingly challenging subject matter complemented with project-based learning, supervision, and mentoring, Rowan’s BME program will prepare its students to be successful and productive members of the engineering profession. Therefore, within a few years of graduation, graduates of the Rowan’s BME program will have demonstrated that they are proficient technologists who are able to solve current and evolving engineering needs and challenges of their chosen field of work, lifelong learners, and responsible professionals.

Rowan BME Program Student Outcomes

Student outcomes are technical and professional skills our students are expected to attain by the time of graduation. At the time of graduation, graduates of the Rowan BME program will have attained the following skills that are necessary for a successful engineer:

- an ability to apply knowledge of mathematics, science, and engineering;
- an ability to design and conduct experiments, as well as to analyze and interpret data;
- an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;
- an ability to function on multidisciplinary teams;
- an ability to identify, formulate, and solve engineering problems;
- an understanding of professional and ethical responsibility;
- an ability to communicate effectively;
- the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;
- a recognition of the need for, and an ability to engage in life-long learning;
- a knowledge of contemporary issues;
- an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

BACHELOR OF SCIENCE IN BIOMEDICAL ENGINEERING

Henry M. Rowan Hall
856.256.5300

General Education

All students must complete the University General Education requirements as described on page 31

Rowan Experience

All students must complete the Rowan Experience requirements as described on page 33

Required Courses

- MATH01.130 Calculus I 4 s.h.
- MATH01.131 Calculus II 4 s.h.
- MATH01.230 Calculus III 4 s.h.
- MATH01.2xx Math for Engineering Analysis 4 s.h
- PHYS00.220 Introductory Mechanics 4 s.h.
- PHYS00.222 Introductory Electricity & Magnetism 4 s.h.
- CHEM06.100 Chemistry I 4 s.h.
- CHEM06.101 Chemistry II 4 s.h.
College of Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL01.106</td>
<td>Genetics</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>BIOL01.203</td>
<td>Cell Biology</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ENGR01.101</td>
<td>Freshman Engineering Clinic I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.102</td>
<td>Freshman Engineering Clinic II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.201</td>
<td>Sophomore Engineering Clinic I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ENGR01.202</td>
<td>Sophomore Engineering Clinic II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ENGR01.301</td>
<td>Junior Engineering Clinic I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.302</td>
<td>Junior Engineering Clinic II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.401</td>
<td>Senior Engineering Clinic I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.402</td>
<td>Senior Engineering Clinic II</td>
<td>2 s.h.</td>
</tr>
</tbody>
</table>

**Science and Engineering Electives**

TBD

**Required Electives**

TBD

**Total Credits in Program**

132 s.h.

**Department of Chemical Engineering**

Mariano J. Savelski  
Chair  
Henry M. Rowan Hall  
856.256.5310  
savelski@rowan.edu

Chemical Engineering is the application of mathematics and sciences, with special emphasis on chemistry, in the development, design, and supervision of processes to manufacture useful products. Chemical engineers are part of numerous industries and technologies including petrochemicals, pharmaceuticals, biotechnology, food and consumer products, polymers, microelectronics, electronic and advanced materials, sustainable technologies, safety, health and environment.

**Mission and Goals**

The Rowan University Chemical Engineering Program is a student-centered, primarily undergraduate program that incorporates leading-edge educational methods and technology with engineering practice. We prepare students for careers in the global chemical process industry and related fields, and for advanced degree study. Our program provides students with a strong foundation in chemical engineering science and design, and emphasizes the development of effective communication and teaming skills, and professional responsibility in preparation for a career in a diverse global workforce.

Throughout the curriculum, students are exposed to chemical engineering methods using hands-on, state-of-the-art experiments, modern computer tools, and problem synthesis and solution approaches. The Chemical Engineering Program is committed to technical excellence, professional responsibility, and lifelong learning.

We use this mission statement along with the following three goals, to try to achieve the best possible learning environment for our students:

**Goal 1** Develop engineers who are successfully using their chemical engineering expertise to adapt to the evolving technological challenges of a wide variety of professional fields.

**Goal 2** Develop engineers who, within several years of graduation, are functioning independently and collaboratively in providing creative solution strategies to problems for their employer.

**Goal 3** Develop engineers who engage in professional growth and responsible practice.

**BACHELOR OF SCIENCE IN CHEMICAL ENGINEERING**

Mariano J. Savelski  
Chair  
Henry M. Rowan Hall  
856.256.5310  
savelski@rowan.edu

**General Education and Rowan Experience**

All Chemical Engineering majors are required to fulfill the General Education / Rowan Experience requirements of a Specialized Degree Model. In this model, your Math, Science and Communications requirements are met from the required courses in the Chemical Engineering program. Other Rowan Experience courses are met throughout your required program of study. For example, Senior Engineering Clinic II is the Writing Intensive (WI) course and Freshman Clinic I is the Rowan Seminar (RS) course. You need to choose 15 credits of General Education courses (typically five courses that are 3 credits each) that meet the following criteria:

- Two (6 credits) History Humanities Language (HHL) courses
- Two (6 credits) Social and Behavioral Sciences (SBS) courses (ECON 04102 Microeconomics and one that you choose)
• One (3 credits) Artistic and Creative Expression (ACE) course
• One of the above General Education courses must be a Multicultural/Global (listed as M/G or MCUL) course
• One of the above General Education courses must be a Literature-based (LIT) course.
• A course can be designated as both LIT and MCUL (e.g. ENGL 02112, Readings in Asian Lit) which will meet both criteria, but you still have to take 5 (five) courses.

Double counting of HHL, SBS, and ACE courses is not permitted. If a course meets the requirements of two categories (e.g., HHL and ACE), you must use it in one or the other. Therefore, you will still need to take 5 courses (15 credits).

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.235</td>
<td>Math for Engineering Analysis I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MATH01.236</td>
<td>Math for Engineering Analysis II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHEM06.105</td>
<td>Adv. College Chemistry I</td>
<td></td>
</tr>
<tr>
<td>CHEM07.200</td>
<td>Organic Chemistry I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ECON04.102</td>
<td>Microeconomics</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHYS00.220</td>
<td>Introductory Mechanics</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CS04.103</td>
<td>Computer Science and Programming</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>or CS01.104</td>
<td>Intro to Scientific Programming</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or CS01.102</td>
<td>Introduction to Programming</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>BIOL01.210</td>
<td>Biological Systems and Applications</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ENGR01.101</td>
<td>Freshman Engineering Clinics I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.102</td>
<td>Freshman Engineering Clinics II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.102</td>
<td>Sophomore Engineering Clinic I*</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ENGR01.201</td>
<td>Sophomore Engineering Clinic II*</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHE06.201</td>
<td>Principles Chemical Processes I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.202</td>
<td>Principles Chemical Processes II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.341</td>
<td>Fluid Mechanics I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.309</td>
<td>Process Fluid Transport</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.310</td>
<td>Heat Transfer Processes</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.312</td>
<td>Separations Processes I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.314</td>
<td>Separations Processes II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHE06.315</td>
<td>Chemical Engineering Thermodynamics I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHE06.316</td>
<td>Chemical Engineering Thermodynamics II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ENGR01.301</td>
<td>Junior Engineering Clinics I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.302</td>
<td>Junior Engineering Clinics II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.281</td>
<td>Materials Science</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.316</td>
<td>Chemical Reaction Engineering</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHE06.403</td>
<td>Unit Op Exp Design &amp; Analysis</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.404</td>
<td>Unit Operations Lab II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.405</td>
<td>Process Dynamics and Control</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ENGR01.401</td>
<td>Senior Engineering Clinics I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.402</td>
<td>Senior Engineering Clinics II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CHE06.401</td>
<td>Chemical Process Component Design</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHE06.406</td>
<td>Chemical Plant Design</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

**Materials Specialization**

Jennifer Vernengo
Advisor
Henry M. Rowan Hall
856.256.5310
vernengo@rowan.edu

This specialization provides a mechanism to give students credit for their focused study in materials on their transcripts. Extending this opportunity to students is valuable to them because of growing industrial interest in these areas of chemical engineering.

**Total Credits in Program**

**MATERIALS SPECIALIZATION**

93
In South Jersey, there are a number of local industries, such as Solvay Solexis, Metrologic, DuPont, and VWR Scientific, whose success is based on the application of materials science. Within the region, there are only a limited number of schools that can supply qualified people to meet the needs of their labor force. By providing skilled graduates, this project will ensure that these companies can meet these needs and allow them to expand their enterprises. The local economy has an ever-increasing pressure for well-trained technicians, scientists, and engineers.

Materials science is inherently multi-disciplinary, requiring of its practitioners a broad range of knowledge and a variety of skills. Students in the proposed program will be able to follow the complete cycle of materials science from concept to research design to synthesis, to measurement of and explanation for the physical properties of the material to successful application. Coupled with the organization of learning for chemical engineering students within the program comes a distinct and strong effort to motivate students to pursue careers in materials research. Ultimately, these efforts should help us retain a diverse pool of talented students in New Jersey instead of being lost to out-of-state institutions.

This specialization is a cohesive set of courses that focus on materials within chemical engineering. To obtain this specialization in materials, at least 12 semester hours of credit are required. The requirements to earn a specialization in materials are as follows:

**Course Credits**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Materials Science (ENGR01.281)</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>Jr/Sr Clinic Materials-related project (ENGR01.301,302,401,402)</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ChE or Chemistry Elective - from approved list</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Out of Discipline Elective - from approved list</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

In order to earn the specialization in materials, students can earn four credits by working on an approved materials project in 2 semesters of Junior/Senior Engineering Clinic. These projects can be housed in any of the four engineering disciplines, but must be approved by the Chemical Engineering faculty as having substantial materials content. Note that students can also fulfill the project requirement through independent study on materials-related projects (Independent Study in Engineering ENGR01.391).

Students earn the remaining six credits towards the specialization by taking one elective from each of the following lists. In order to underscore the diverse applications and multi-disciplinary nature of materials science, we will require students to take one chemistry or chemical engineering elective, and one materials elective outside of chemical engineering. Note that a chemistry course can be used to fulfill either requirement, but no one course can be used to fulfill both. Alternative courses to that given below must be approved by the specialization advisor.

### Approved Materials Electives from ChE or Chemistry

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE06.466 Polymer Processing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHE06.490 Approved Special Topics Course</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHEM05.430 Approved Advanced Topics in Chemistry,</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHEM07.405 Introduction to Polymer Chemistry</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHEM07.475 Polymer Synthesis</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHEM07.478 Polymer Characterization</td>
<td>4 s.h.</td>
</tr>
</tbody>
</table>

### Approved Materials Electives from outside Chemical Engineering

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE08.301 Civil Engineering Materials</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ME10.422 Introduction to Computational Fluid Dynamics</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHEM05.430 Approved Advanced Topics in Chemistry,</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHEM07.405 Introduction to Polymer Chemistry</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHEM07.475 Polymer Synthesis</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHEM07.478 Polymer Characterization</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>INTR01.486 Interdisciplinary Materials Science</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

Faculty in chemical engineering and throughout the College routinely manage Junior/Senior Engineering Clinic projects in materials.

The following is a list of Junior/Senior Clinic projects that would be acceptable for this specialization:

- ME-01 Plastics Ignition Experiment Development
- ME-06 Development and Testing of Component Packaging for an Optical Filter
- ME-07 Magneto-Rheological Rubber Development and Testing
- ECE-01 Nano-Imprint Lithography
- ECE-02 Molecular Electronics
- ECE-03 Materials For Biomedical Research
- CEE-07 Measurement and Visualization of Strain Using Computer Vision
- CEE-10 Evaluation of New Pavement Design Guide
- CEE-11 Evaluating Sources of Rutting within New Pavement
- CEE-12 Evaluating Mixture Performance using Design Guide
- CEE-14 Anchorage of Rebar in Fiber Reinforced Concrete
- CHE-03 Performance Testing of Kevlar-Derakane Composites
- CHE-04 Materials Science Education
BIOLOGICAL ENGINEERING SPECIALIZATION

Mary M. Staehle
Advisor
Henry M. Rowan Hall
856.256.5310
staehle@rowan.edu

This specialization provides a mechanism to give students credit for their focused study in bioengineering. Extending this opportunity to students is valuable to them because of growing industrial interest in these areas of chemical engineering. In 1992, NIH defined "biomolecular engineering" as: "Research at the interface of chemical engineering and biology with an emphasis at the molecular level."

Recent trends in chemical engineering research, the decisions of government agencies, and the opinions of leading academics were taken as the platform for the development of the bio-related specialization.

Modern biology has emerged as an underlying fundamental science in chemical engineering. Advances in biology are prompting new discoveries in the biotechnology, pharmaceutical, medical technology, and chemical industries. Developing commercial-scale processes based on these advances requires that new chemical engineers clearly understand the biochemical principles behind the technology, in addition to developing a firm grasp of chemical engineering principles. Many jobs in the "Fast Company 25 Top Jobs for 2005" list are bio-related. Finally, New Jersey is a global and national leader in the biotechnology and pharmaceutical industries.

Instead of working at the "macro" scale, as traditional biochemical engineers have, there is a need for students to be able to work across scales - from the molecular level to the microscopic to the macroscopic. Traditional biochemical engineering focused on bioreactor design, agitation, and microbial cultures as a whole - macroscopic processes. Current and future applications will require students to be familiar with the molecular details of the product of interest, which help determine how to design and operate microscopic and macroscopic operations for production and purification. This specialization is a cohesive set of courses that focus on a biological engineering within chemical engineering and requires at least 12 semester hours of credit. The requirements to earn a specialization in biological engineering are as follows:

Course Credits 12 s.h.

- Biological Systems and Applications (BIOL01.210)
- Jr/Sr Clinic Bio-related project (ENGR01.301, 302, 401 and 402)
- Electives - from approved list

The Biological Systems and Applications course is a required course in chemical engineering that was added as a response to the growing national interest in biochemical engineering. This course is prerequisite for all subsequent work towards a biological engineering specialization.

Junior/Senior Engineering Clinic is a required 2-credit course for students in all engineering disciplines. This course is a hallmark of the Rowan College of Engineering and provides undergraduate students with hands-on experience on practical engineering research and design problems, frequently in collaboration with local industrial sponsors. All engineering students are required to take four semesters (8 credits) of Junior/Senior Clinic. Students who wish to earn a specialization in biological engineering must select an approved Junior/Senior Clinic project for at least one of their four semesters. Note that students can also fulfill the project requirement through independent study on bio-related projects (Independent Study in Engineering ENGR01.391).

Because the department wishes to maintain a "depth and breadth" approach to the biological engineering specialization, a student will not be allowed to apply more than 4 credits worth of Junior/Senior Clinic to their specialization. Students must earn the balance of the 12 credits by taking any combination courses from the following list:

Approved list of electives - Chemical Engineering

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHE06.462</td>
<td>Bioprocess Engineering</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHE06.472</td>
<td>Principles of Biomedical Processes</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHE06.476</td>
<td>Principles of Bioseparation Processes</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHE06.482</td>
<td>Principles of Food Engineering</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHE06.483</td>
<td>Principles of Engineering Exercise Physiology</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHE06.484</td>
<td>Fundamentals of Controlled Release</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHE06.486</td>
<td>Membrane Processes</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CHE06.490</td>
<td>Approved Special Topics Course</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

Approved list of electives - Other engineering disciplines

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CEE08.412</td>
<td>Environmental Treatment Process Principles</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.404</td>
<td>Principles of Biomedical Systems and Devices</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

Approved list of electives with bio focus

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL01.430</td>
<td>Cell Biology</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>BIOL01.435</td>
<td>Cell Culture Technology</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>BIOL01.440</td>
<td>Special Topics in Biological Sciences</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>BIOL11.405</td>
<td>Environmental Microbiology</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>BIOL14.440</td>
<td>Intro to Biochemistry</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>
BACHELOR OF SCIENCE IN CIVIL ENGINEERING

Douglas Cleary
Advisor
Henry M. Rowan Hall
856.256.5325
cleary@rowan.edu

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.140</td>
<td>Accelerated Calculus I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MATH01.141</td>
<td>Calculus II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MATH01.235</td>
<td>Math for Engineering Analysis I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MATH01.236</td>
<td>Math for Engineering Analysis II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHEM06.105</td>
<td>Adv. College Chemistry I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ECON04.102</td>
<td>Microeconomics</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHYS00.220</td>
<td>Introductory Mechanics</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>(This also counts as a Social and Behavioral Sciences General Education course.)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Computer Programming Elective (choose one):

- CS01.104  Introduction to Scientific Programming  3 s.h.
- or CS04.103 Computer Science and Programming  4 s.h.

Science Elective (choose one):

- CHEM06.106 Adv. College Chemistry II  4 s.h.
- or PHYS00.222 Introduction to Electricity and Magnetism  4 s.h.
or PHYS 221

Introduction to Thermodynamics, Fluids, Waves, and Optics 4 s.h.

ENGR 01.101  
Freshman Engineering Clinic I 2 s.h.

(This course also fulfills the Rowan Seminar requirement.)

ENGR 01.102  
Freshman Engineering Clinic II 2 s.h.

ENGR 01.201  
Sophomore Engineering Clinic I 4 s.h.

(This course also fulfills the General Education requirement College Composition II)

ENGR 01.202  
Sophomore Engineering Clinic II 4 s.h.

(This course also fulfills the Rowan Experience Public Speaking requirement.)

ENGR 01.301  
Junior Engineering Clinic I 2 s.h.

ENGR 01.302  
Junior Engineering Clinic II 2 s.h.

ENGR 01.401  
Senior Engineering Clinic I 2 s.h.

ENGR 01.402  
Senior Engineering Clinic II 2 s.h.

(This course also fulfills the Rowan Experience Writing Intensive requirement.)

ENGR 01.271  
Statics 2 s.h.

ENGR 01.272  
Solid Mechanics 2 s.h.

ENGR 01.281  
Material Science 2 s.h.

ENGR 01.291  
Dynamics 2 s.h.

ENGR 01.341  
Fluid Mechanics I 2 s.h.

CEE 08.382  
Structural Analysis 3 s.h.

CEE 08.383  
Analysis and Design of Steel Frames 3 s.h.

CEE 08.311  
Environmental Engineering I 3 s.h.

CEE 08.312  
Sustainable Civil & Environmental Engineering 3 s.h.

CEE 08.301  
Civil Engineering Materials 2 s.h.

CEE 08.342  
Water Resources Engineering 3 s.h.

CEE 08.351  
Geotechnical Engineering 3 s.h.

CEE 08.305  
Civil Engineering Systems 3 s.h.

CEE 08.361  
Transportation Engineering 3 s.h.

CEE 08.102  
Engineering Graphics 2 s.h.

CEE 08.103  
Field Surveying 2 s.h.

CEE 08.491  
Civil Engineering Design Project I 2 s.h.

CEE 08.492  
Civil Engineering Design Project II 2 s.h.

CEE 08.490  
Civil Engineering Practice 3 s.h.

Civil Engineering Electives 12 s.h.

Technical Elective 3 s.h.

General Education Requirements 12 s.h.

Total Credits in Program 131 s.h.

Department of Electrical and Computer Engineering

Robi Polikar
Chair
Henry M. Rowan Hall
856.256.5372
polikar@rowan.edu

The Rowan Electrical and Computer Engineering (ECE) curriculum combines both electrical engineering topics such as electronics, control systems, digital signal processing, telecommunications, and energy as well as computer engineering topics such as computer hardware & software design, microprocessors and embedded systems. Electrical and Computer engineers have made some remarkable contributions to our world; they have pioneered the invention of smart phones, computers, digital cameras, MP3-players, GPS systems, medical imaging devices, and computer games, just to name a few among seemingly countless technological innovations. ECEs also play a crucial and indispensable role in the design of cars, airplanes, space-craft and extraterrestrial vehicles, home-appliances, life-saving medical equipment and so many other technologies that we have come to rely on.

Core courses taken by all ECE students include such topics as circuits, electronics, electromagnetics, digital design, microprocessors, control systems, communication systems, digital signal processing, data structures, computer architecture and very large scale integration (microelectronics). Advanced senior-level electives provide opportunities to specialize in areas such as nanotechnology, bio-engineering, sustainable design, wireless communications, artificial and computational intelligence, digital image processing, bioinformatics, advanced visualization, embedded systems, etc. All ECE courses have integrated laboratory components. Eight semesters of Engineering Clinic provide students with a team-oriented, multidisciplinary design and research experience, which is a unique opportunity to integrate the students’ theoretical background into the solution of practical real-world engineering problems.

Rowan ECE Program Goals

Rowan’s Electrical and Computer Engineering program is designed to produce effective engineers who can excel in a broad spectrum of environments and challenges, and sustain productivity throughout their career. We prepare our graduates to:

1. Perform as agile problem solvers
2. Become articulate, capable and effective communicators
3. Possess an entrepreneurial spirit
4. Facilitate trans-disciplinary discourse
5. Be sensitized to contemporary issues, and
6. Be competent in essential engineering and ECE knowledge

Rowan ECE Program Educational Objectives

Program educational objectives are broad and long term career accomplishments our students are expected to achieve within a few years of graduation.

Through a rigorous program of study featuring continuous and increasingly challenging subject matter complemented with project-based learning, supervision, and mentoring, Rowan’s ECE program prepares its students to be successful and productive members of the engineering profession. Therefore, within a few years of graduation, graduates of the Rowan’s ECE program will have demonstrated that they are:

1. Proficient technologists, successful in solving current and evolving engineering needs and challenges of their chosen field of work, as evidenced by their continuous and gainful employment, career advancement to positions that come with increased professional responsibilities, or through their entrepreneurial activities;
2. Continuing to learn, evidenced by development of their professional knowledge and skills by pursuing advanced degrees or through other continuing education opportunities in engineering or other professional areas;
3. Responsible professionals, actively serving their profession as evidenced by their active participation in professional societies, and/or their recognition of service to the profession or society.

Rowan ECE Program Student Outcomes

Student outcomes are technical and professional skills our students are expected to attain by the time of graduation.

At the time of graduation, graduates of the Rowan ECE program will have attained the following skills as required for an engineering program accredited by ABET (Accreditation Board for Engineering and Technology)

a. an ability to apply knowledge of mathematics, science, and engineering;

b. an ability to design and conduct experiments, as well as to analyze and interpret data;

b. an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability;

d. an ability to function on multidisciplinary teams;

e. an ability to identify, formulate, and solve engineering problems;

f. an understanding of professional and ethical responsibility;

g. an ability to communicate effectively;

h. the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context;

i. a recognition of the need for, and an ability to engage in life-long learning;

j. a knowledge of contemporary issues;

k. an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

BACHELOR OF SCIENCE IN ELECTRICAL AND COMPUTER ENGINEERING

Robi Polikar

Chair

Henry M. Rowan Hall
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polikar@rowan.edu

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.140</td>
<td>Accelerated Calculus I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MATH01.141</td>
<td>Accelerated Calculus II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MATH01.235</td>
<td>Math for Engineering Analysis I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MATH01.236</td>
<td>Math for Engineering Analysis II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ECON04.102</td>
<td>Intro to Microeconomics</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHYS00.220</td>
<td>Introductory Mechanics I</td>
<td>4 s.h.</td>
</tr>
</tbody>
</table>

(If you have any questions or need further assistance, please feel free to contact me.)
The Minor in Electrical and Computer Engineering (ECE) offers students majoring in disciplines other than ECE the opportunity to become familiar with principles and design practices used to meet the multidisciplinary needs of modern technology. This minor is offered by the faculty of the ECE program and is designed to serve students from other engineering disciplines as well as those students with majors outside of engineering. It is assumed that students who pursue the ECE minor will obtain a mathematics background that is comparable to that required for a major in engineering. The ECE minor stipulates 15 semester hours of required courses that provide a fundamental grounding in ECE knowledge and design. These courses include an introduction to design practice, theory-based courses in both analog and digital circuit design, and an introduction to electrical and computer systems. In addition to these fundamental courses, 4 semester hours of elective courses assure the students an opportunity to emphasize a particular area of interest.

### Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE09.203</td>
<td>Principles of Electric Circuit Analysis</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ECE09.241</td>
<td>Digital I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.311</td>
<td>Electronics I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.341</td>
<td>Signals and Systems</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ECE09.351</td>
<td>Digital Signal Processing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.363</td>
<td>Modules in Electrical and Computer Engineering</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ECE09.430</td>
<td>Electrical Communications Systems</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.498</td>
<td>Seminar: Engineering Frontiers</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ECE09.460</td>
<td>Clinic Consultant: I</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>ECE09.462</td>
<td>Clinic Consultant: II</td>
<td>1 s.h.</td>
</tr>
</tbody>
</table>

One of the following science electives:

- **CHEM06.100** College Chemistry I 4 s.h.
- **or BIOL01.113** General Biology: Human Focus 4 s.h.
- **or BIOL10.210** Human Anatomy and Physiology 4 s.h.
- **or PHYS00.222** Modern Physics 4 s.h.

### Required Electives

- **EE Core Elective (i)** 3 s.h.
- **ECE Elective (i)** 3 s.h.
- **CpE Elective (i)** 3 s.h.
- **CpE Core Elective (i)** 3 s.h.
- **Technology Focus Electives (ii)** 6 s.h.

**Total Credits in Program**

128 s.h.
**Elective Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE09.303</td>
<td>Engineering Electromagnetics I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or PHYS00.320</td>
<td>Electricity and Magnetism I</td>
<td></td>
</tr>
<tr>
<td>ECE09.312</td>
<td>Electronics II / VLSI Design</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.330</td>
<td>Electrical Communications Systems</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.351</td>
<td>Digital Signal Processing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.402</td>
<td>Topics in Electrical and Computer Engineering (Subject to ECE [departmental approval])</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EGR01.302</td>
<td>Junior Engineering Clinic II</td>
<td>2 s.h.</td>
</tr>
</tbody>
</table>

Program Total: 19 s.h.

*Non-engineering majors enrolled in the ECE minor must complete the following mathematics courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.130</td>
<td>Calc I</td>
</tr>
<tr>
<td>MATH01.131</td>
<td>Calc II</td>
</tr>
<tr>
<td>MATH01.230</td>
<td>Calc III</td>
</tr>
<tr>
<td>MATH01.210</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH01.231</td>
<td>Ordinary Differential Equations</td>
</tr>
</tbody>
</table>

**Senior Elective courses may be used as electives in the ECE Minor with permission of the ECE Minor Advisor and the Elective Course instructor.**

**BIOMEDICAL ENGINEERING SPECIALIZATION**

Robi Polikar  
Advisor  
Henry M. Rowan Hall  
856.256.5372  
polikar@rowan.edu  

The ECE department's biomedical engineering (BME) concentration is designed to be as flexible as possible while ensuring a meaningful depth and breadth in biomedical engineering.

1. All ECE students are required to take two core science classes (from an approved list of science classes) outside of Engineering. The list currently includes the following courses. Therefore, students who wish to concentrate on BME are advised to take one of these courses towards their regular science requirements:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL01.210</td>
<td>Biological Systems and Applications</td>
</tr>
<tr>
<td>BIOL01.100</td>
<td>Biology I</td>
</tr>
</tbody>
</table>

2. Students need a minimum of 8 credits from an approved list of Biological Science Electives. The approved list of electives will be reviewed on a yearly basis depending on the courses offered on campus. In general, these courses are from the Anatomy/Physiology bank or from the Cellular, Molecular Biology bank of the Biology program, or from the Chemistry / Biochemistry program. The students are responsible for either obtaining the prerequisites, or making the necessary arrangements with the professor. The courses listed in (1) do count towards this requirement. In general, students need to satisfy this requirement during their sophomore or junior year.

3. No fewer than 4, no more than 8 credits of Junior / Senior clinic must come from BME related projects. Note that each Ju/Se clinic in ECE is 2 credits. Therefore, 2 - 4 semesters of clinic experience must come from BME related projects. Every semester, there are a number of projects that are BME related. Those projects that qualify for this category will be announced every semester.

4. Minimum of 3 credits (one course) from an approved list of Bio-related ECE electives. The list currently includes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECE09.404</td>
<td>Principles of Biomedical Systems and Devices</td>
</tr>
</tbody>
</table>

Additional courses will be added to this bank. Note that every semester the ECE department offers electives under the title "Special Topics in ECE" (0909.401.xx). Some of these classes are BME related and will count towards this requirement. Special Topics courses that qualify for BME concentration will be announced every semester. This course will be taken during the senior year.

5. Minimum of 3 credits from an approved list of Bio-related non-ECE engineering electives. Any course that is on the approved list of other engineering departments' BME bank will count towards this requirement. This course will also be taken during the senior year. Students are encouraged to discuss their intention to specialize in biomedical engineering as early as possible with the BME advisor in the ECE department. The advisor will be able to guide students on the correct sequence of required courses.

**Department of Mechanical Engineering**

Eric W. Constans  
Chair  
Henry M. Rowan Hall  
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constans@rowan.edu
Mechanical Engineering involves the design and building of machines and devices. This includes the conversion of energy from one form to another, the dynamics of mechanical devices, and the control systems for operation of machines. Design of thermal and mechanical systems are integrated into the curriculum.

The Rowan Mechanical Engineering Program develops effective engineers who are well prepared for the next phase of their career, whether in industry or government or in graduate school. Our goals are as follows:

1. Create well-rounded engineers who possess theoretical and practical skills, and understand the significance of the humanities and social sciences
2. Produce graduates who have the necessary teamwork and leadership skills to excel in multidisciplinary team environments
3. Develop innovative and creative thinkers who possess an understanding of entrepreneurship
4. Develop engineers with scientific, mathematical, analytical, computational, and experimental skills who can formulate and solve engineering problems
5. Instill in students an appreciation of the impact of engineering solutions in a global and societal context, including the broad implications of professional ethics
6. Develop engineers with the flexibility to adapt to changing technology and an understanding of the need for continuous improvement and lifelong learning.

**BACHELOR OF SCIENCE IN MECHANICAL ENGINEERING**

Eric W. Constans, Advisor
Henry M. Rowan Hall
856.256.5340
constans@rowan.edu

**General Education**

All students must complete the University General Education requirements as described on page 31

**Rowan Experience**

All students must complete the Rowan Experience requirements as described on page 33

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.235</td>
<td>Math for Engineering Analysis I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MATH01.236</td>
<td>Math for Engineering Analysis II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CHEM06.105</td>
<td>Adv. College Chemistry I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CS04.103</td>
<td>Computer Science and Programming</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ECT06.140</td>
<td>Entrepreneurship and Innovation</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ECE09.205</td>
<td>Principles and Applications of ECE for Nonmajors</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ENGR01.101</td>
<td>Freshman Engineering Clinic I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.102</td>
<td>Freshman Engineering Clinic II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.201</td>
<td>Sophomore Engineering Clinic I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ENGR01.202</td>
<td>Sophomore Engineering Clinic II</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ENGR01.271</td>
<td>Statics</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.273</td>
<td>Strength of Materials</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ENGR01.283</td>
<td>Materials Science and Manufacturing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ENGR01.291</td>
<td>Dynamics</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.301</td>
<td>Junior Engineering Clinic I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.302</td>
<td>Junior Engineering Clinic II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.401</td>
<td>Senior Engineering Clinic I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.402</td>
<td>Senior Engineering Clinic II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ENGR01.410</td>
<td>Finite Element Analysis</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ME10.101</td>
<td>Introduction to Mechanical Design</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ME10.211</td>
<td>Mechanical Engineering Laboratory</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ME10.301</td>
<td>Machine Design</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ME10.311</td>
<td>Thermal-Fluid Sciences I</td>
<td>6 s.h.</td>
</tr>
<tr>
<td>ME10.322</td>
<td>Thermal-Fluid Sciences II</td>
<td>6 s.h.</td>
</tr>
<tr>
<td>ME10.342</td>
<td>Quality and Reliability in Design and Manufacturing</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ME10.343</td>
<td>System Dynamics and Control I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ME10.344</td>
<td>System Dynamics and Control II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ME10.470</td>
<td>Introduction to Biomechanics</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

**Total Credits in Program**

128 s.h.
CONCENTRATION IN BIOENGINEERING
Jennifer A. Kadlowec
Advisor
Henry M. Rowan Hall
856.256.5344
kadlowec@rowan.edu

There are two basic components to earning a concentration in bioengineering for mechanical engineering:

A. A focused selection of mechanical engineering, non-mechanical engineering and science electives and Jr/Sr Clinic projects that are part of the standard curriculum

B. One more bioengineering-related non-mechanical engineering course

Component A consists of a focused selection of three mechanical engineering electives (9 s.h.), one non-mechanical engineering elective (3 s.h.), one science elective (3-4 s.h.) and one Jr/Sr Clinic project (2 s.h.) that are required for the standard mechanical engineering degree. One semester of Jr/Sr clinic must be spent on a bioengineering related project. This project can be from any engineering discipline, as long as it has a substantial bioengineering component.

Your selection of Junior and Senior year electives must also be focused on bioengineering electives. Three of the four mechanical engineering electives must be from the approved list of bioengineering electives within mechanical engineering. Of the four mechanical engineering electives (three of which are bioengineering related) you must ensure that you meet the mechanical engineering degree requirement that at least one be from the thermal/fluids stem and at least one be from the mechanical stem. For the concentration, the technical elective is replaced with one of the non-ME bioengineering electives below. Also for the concentration, you must take an approved biological science elective in place of the standard math/science elective.

Component B consists of one additional bioengineering-related course (3-4 s.h.) outside of mechanical engineering, which is beyond the ME degree requirements. This course must be from the list of approved electives in biology, chemistry, and other engineering disciplines. You must determine how this will fit into your schedule. The most likely mechanism is for you to complete your general education requirements early, and then fill this open space in your schedule with an approved elective. Currently, general education blocks appear in the curriculum during both semesters of the Freshman and Senior years and in the summer.
College of Performing Arts

John Pastin
Dean
Wilson Hall
856.256.4551
pastin@rowan.edu

Melanie Stewart
Associate Dean
Wilson Hall
856.256.4548
stewartm@rowan.edu

History
The College of Performing Arts (formerly, the School of Fine and Performing Arts at Glassboro State College) was founded in 1971. It was in 1997, during the transition from Glassboro State College to Rowan University, that the School became the College of Fine and Performing Arts. In 2012, the College was renamed the College of Performing Arts. Today, the College is comprised of the departments of Music (including the Maynard Ferguson Institute of Jazz Studies) and Theatre & Dance. The College offers baccalaureate degrees in the fields of Music and Theatre, and graduate degrees in Music and Theatre: Arts Administration.

In addition to more than 250 performances on campus each year, the faculty, staff and students collaborate in scholarly and artistic activities at the international, national and regional levels.

The College is dedicated to fostering artistic and creative experiences for the campus and the surrounding community. Specifically, the College of Performing Arts provides professional training for arts majors and aesthetic experiences for all Rowan University students, enhancing the educational programs of the institution.

Mission
The College of Performing Arts at Rowan University is dedicated to developing future leaders in the performing arts and arts education. The college provides students with rigorous professional preparation through close mentorship by a world-class faculty of artist scholars. Our exemplary undergraduate and graduate curricula are complimented by a challenging liberal arts education. The college serves as a cultural center for the campus and the South Jersey region by providing a wide range of classical and contemporary arts programming.

Accreditation
Specialized, national arts accreditation has been granted by the following organizations:
- The National Association of Schools of Music
- The National Association of Schools of Theatre

Programs Offered
In the professional area, the College offers rigorous degree programs designed to develop technical and creative abilities to the highest level, as well as provide a comprehensive socio-historical awareness for the Arts practitioner.

Elective courses in the arts allow all students to partake of the unique, intellectual and emotional experiences that the arts provide. Performing/creating experiences are open to all and are designed to foster the artistic discipline that is expected in such activities. Further, they provide social and collegial experiences desirable in a college education. Through participation in musical ensembles, dance ensembles, and theatre productions artistic expression becomes an integral part of the educational experience.

In the Liberal Arts area, arts curricula provide extensive study of the performing arts through Minor programs and general education offerings. In these Bachelor of Arts programs, a focus on one particular segment of the arts allows the student to share the diversity of our cultural base and also to gain the perspective, if not the expertise, of the professional artist.

A program of study in the College can lead to:
- A professional career in the arts
- A teaching career in the arts
- Graduate study in the arts
- Other career options not tied fully to the arts, but which draw on the knowledge and rigor inherent in them

Central to a productive environment for the study of the arts is a vital community of arts professionals, both faculty and student artists, scholars, educators and performers whose careers are dedicated to the creative pursuit and advancement of the arts, in terms of their own individual creation and, also, in edification of the audience. The performing arts faculty at Rowan consists of some of the finest arts professionals in the nation, all dedicated to fostering a creative, productive atmosphere in which all of the arts can flourish.

Programs Majors and Minors
Major programs consist of a Bachelor of Arts in Music and Theatre Arts; and a Bachelor of Music and Bachelor of Music Education. Minor and Concentration programs are available in Dance, Music and Theatre.

Dual Majors in Teaching
Music majors can apply for a dual major in Education. Students must complete the general education and other requirements specified by the appropriate departments within the College of Education. Theatre majors interested in teaching can apply to the graduate MST in Subject Matter Education: Theatre Education upon successful completion of the BA in Theatre.

Requirements
At Rowan, we recognize and embrace the importance of the general education curriculum in all academic programs. Obtaining the Bachelor of Arts degree in an arts area broadens the background of the student, establishing a foundation for further study in many diverse areas. Of the 120-135 semester hours to be completed for the BA, at least 45 shall be at the 300 or 400 level and at least 90 shall be in courses using the A-F grading system. Core Foundation Courses in each major are specified within each department.

Departments
The College Performing Arts consists of two departments: Music, and Theatre/Dance.

Department of Music
Rick Dammers
Chair
Wilson Hall
856.256.4557
dammers@rowan.edu

Mission
The Department of Music at Rowan University is a vibrant, creative community of performers, scholars, and educators that prepares students to be leaders in the music profession. Rowan's music programs enrich the lives of all students by offering courses and performances designed to inform, enlighten and elevate their creative sensibilities which, additionally, serve the broader community through performances, scholarship, and artistic offerings that inspire and touch the souls of its citizens.

Degrees
The undergraduate study of music can lead to a career as a performing musician, a career as music educator, graduate study in music, as well as a broader cultural knowledge appropriate for many other career options. The Department of Music offers a Bachelor of Music degree with program options in Composition, Jazz Studies, and Performance, designed to provide the initial preparation for careers as performers, composers, scholars and college teachers. The Bachelor of Music Education degree, taken as a dual major with the Bachelor of Arts in Education -Subject Matter Education, is designed to prepare students for a career in teaching music in the public schools and leads to a K-12 Music Teaching Certificate in the State of New Jersey. Students choose a specialization in instrumental, jazz, or vocal music education. The Bachelor of Arts in Music is a liberal arts program with a focus in music, designed for students who want to combine a broad academic background with sufficient musical training for further study in fields such as musicology, music criticism or music therapy. This program is for those who want a career outside of music performance or teaching. The Minor in Music is a flexible sequence of music courses, taken with a separate major outside music.

General Information
The Department of Music offers for music majors and minors, applied instruction in composition, brass (trumpet, horn, trombone, euphonium, tuba), guitar, jazz improvisation, keyboard (piano, organ, accordion), percussion, woodwinds (flute, clarinet, oboe, bassoon, saxophone), and voice. For admission to any of the music majors or the music minor, an applicant must demonstrate, by audition, a high level of proficiency in some area of music performance. Each semester, participation in ensembles and attendance at master classes and departmental recitals is required of all music students. All music majors, except those in the Bachelor of Arts in Music curriculum, present a senior recital. Requirements for the Bachelor of Music in Performance and Jazz Studies include a junior recital as well. Students in other disciplines are invited and encouraged to take part in ensembles and other activities within the Department of Music. The Department of Music is a fully accredited member of the National Association of Schools of Music and sponsors chapters of the American Choral Directors Association (ACDA), National Association for Music Education (NAfME), Phi Mu Alpha Sinfonia, and Sigma Alpha Iota.

BACHELOR OF ARTS IN MUSIC
Larry DePasquale
Advisor
Wilson Hall
856.256.4896
depasquale@rowan.edu

ROWAN UNIVERSITY UNDERGRADUATE CATALOG 2014-2015
General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Major Requirements

MUS01.103  Major Applied Instrument 1
MUS01.104  Major Applied Instrument 2
MUS01.203  Major Applied Instrument 3
MUS01.204  Major Applied Instrument 4
MUS01.303  Major Applied Instrument 5
MUS01.304  Major Applied Instrument 6

or

MUS01.109  Major Applied Voice 1
MUS01.110  Major Applied Voice 2
MUS01.209  Major Applied Voice 3
MUS01.309  Major Applied Voice 4
MUS01.310  Major Applied Voice 5
MUS01.310  Major Applied Voice 6
MUS97.100  Piano Class I
MUS97.101  Piano Class II
MUS04.130  Music Theory I - Written
MUS04.131  Music Theory II - Written
MUS04.132  Music Theory I - Aural
MUS04.133  Music Theory II - Aural
MUSG06.102  General Music History
MUSG06.447  Music in World Cultures

or MUSG06.115  Growth and Development of Jazz

MUS01.050-MUS01.057  Student Recitals
Ensembles  (as assigned by audition)

Choose two (2)

MUSG06.214  Development of Musical Styles I
MUSG06.215  Development of Musical Styles II
MUSG06.335  Development of Musical Styles III

Choose five (5) credits:

MUS04.110  Sight Singing and Ear Training
MUS04.118  Music Fundamentals
MUS04.240  Music Theory III - Written
MUS04.241  Music Theory IV - Written
MUS04.242  Music Theory III - Aural
MUS04.243  Music Theory IV - Aural
MUS97.200  Piano Class III
MUS97.201  Piano Class IV
MUS04.350  Computer Technology and Music I
MUS04.351  Computer Technology and Music II

Total Program  120 s.h.

BACHELOR OF MUSIC - MUSIC EDUCATION

Larry DePasquale
Advisor
Wilson Hall
856.256.4896
depasquale@rowan.edu

Sheri Rodriguez
Advisor
Herman D. James Hall
856.256.4759
rodriguezs@rowan.edu

Teacher Certification K-12 with specializations: Instrumental, Vocal, Jazz

General Education
All students must complete the University General Education requirements as described on page 31
**Rowan Experience**

All students must complete the Rowan Experience requirements as described on page 33

**Major Requirements**  
64-75 s.h.

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<td>MUS97.219</td>
<td>Piano Pedagogy (keyboard players only)</td>
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<td>Keyboard Literature (keyboard players only)</td>
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<td>MUSG06.210</td>
<td>Vocal Literature</td>
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Jazz Specialization Only
MUS04.333  Stage Band Rehearsal Techniques
MUS04.361  Arranging for Large/Small Jazz Ensembles

BACHELOR OF MUSIC - PERFORMANCE
Larry DePasquale
Advisor
Wilson Hall
856.256.4896
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Keyboard, Instrumental, or Vocal  136 or 137 s.h.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Major Requirements  93-94 s.h.
MUSG06.214  Development of Musical Styles I
MUSG06.215  Development of Musical Styles II
MUSG06.335  Development of Musical Styles III
MUS04.130  Music Theory I - Written
MUS04.131  Music Theory II - Written
MUS04.132  Music Theory I - Aural
MUS04.133  Music Theory II - Aural
MUS04.240  Music Theory III - Written
MUS04.241  Music Theory IV - Written
MUS04.242  Music Theory III - Aural
MUS04.243  Music Theory IV - Aural
MUS01.101  Professional Applied Instrument I
MUS01.102  Professional Applied Instrument II
MUS01.201  Professional Applied Instrument III
MUS01.202  Professional Applied Instrument IV
MUS01.301  Professional Applied Instrument V
MUS01.401  Professional Applied Instrument VII
MUS01.402  Professional Applied Instrument VIII

or
MUS01.107  Professional Applied Voice I
MUS01.108  Professional Applied Voice II
MUS01.207  Professional Applied Voice III
MUS01.208  Professional Applied Voice IV
MUS01.307  Professional Applied Voice V
MUS01.407  Professional Applied Voice VI
MUS01.408  Professional Applied Voice VII
MUS01.409  Professional Applied Voice VIII
MUS97.100  Piano Class I (except Keyboard Majors)
MUS97.101  Piano Class II (except Keyboard Majors)
MUS97.200  Piano Class III (except Keyboard Majors)
MUS97.201  Piano Class IV (except Keyboard Majors)
MUS97.212  Conducting - Instrumental I
MUS97.312  Conducting - Instrumental II

or
MUS97.213  Conducting - Choral I
MUS97.313  Conducting - Choral II
MUS04.309  Chamber Music I
MUS04.310  Chamber Music II
MUSG06.447  Music in World Cultures: Asia & Oceania
MUS04.450  Form and Analysis (except Vocal Majors)
MUS01.050 - MUS01.057  Student Recitals

Ensembles
Two ensembles per semester, as assigned by audition

Vocal Specialization Only
### BACHELOR OF MUSIC - JAZZ STUDIES

**Advisor**
Larry DePasquale

**Wilson Hall**
856.256.4896
depasquale@rowan.edu

**Jazz Studies Curriculum**

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**General Education**

All students must complete the University General Education requirements as described on page 31.

**Rowan Experience**

All students must complete the Rowan Experience requirements as described on page 33.

**Major Requirements**

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**Ensembles (by audition)**

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<td>Development of Musical Styles III</td>
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<td>MUS04.363</td>
<td>Writing in Traditional and Contemporary Styles</td>
</tr>
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MUS04.361  Arranging for Large/Small Jazz Ensembles

BACHELOR OF MUSIC - COMPOSITION
Larry DePasquale
Advisor
Wilson Hall
856.256.4896
depasquale@rowan.edu

Music Composition  137 s.h.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Major Requirements  90 s.h.

MUSG06.214  Development of Musical Styles I
MUSG06.215  Development of Musical Styles II
MUSG06.335  Development of Musical Styles III
MUS04.125  Music Composition I
MUS04.225  Music Composition III
MUS04.326  Music Composition IV
MUS04.325  Music Composition V
MUS04.326  Music Composition VI
MUS04.425  Music Composition VII
MUS04.426  Music Composition VIII
MUS04.430  Music Theory I - Written
MUS04.431  Music Theory II - Written
MUS04.432  Music Theory I - Aural
MUS04.433  Music Theory II - Aural
MUS04.240  Music Theory III - Written
MUS04.242  Music Theory III - Aural
MUS04.241  Music Theory IV - Written
MUS04.243  Music Theory IV - Aural
MUS08.156 - MUS08.163  Contemporary Music Ensemble
MUS07.100  Piano Class I
MUS07.101  Piano Class II
MUS07.200  Piano Class III
MUS07.201  Piano Class IV
MUS01.105  Secondary Applied Instrument I
MUS01.106  Secondary Applied Instrument II
MUS01.205  Secondary Applied Instrument III
MUS01.206  Secondary Applied Instrument IV
MUS01.305  Secondary Applied Instrument V
MUS01.306  Secondary Applied Instrument VI
MUS01.405  Secondary Applied Instrument VII
MUS01.406  Secondary Applied Instrument VIII
MUS07.312  Conducting - Instrumental I
MUS07.213  Conducting - Choral I
MUS04.450  Form and Analysis
MUS04.404  Orchestration
MUS04.350  Computer Technology and Music I
MUS04.455  Counterpoint
MUS04.403  Choral Arranging
MUS01.050 - MUS01.057  Student Recitals
MUS04.309  Chamber Music I
MUS04.310  Chamber Music II

MINOR IN MUSIC
Larry DePasquale, Advisor
Wilson Hall
856.256.4896
depasquale@rowan.edu

Music Minor (for Non-Music Majors)  34-35 s.h.
Requirements

25-26 s.h.

MUS01.105   Secondary Applied Instrument 1
MUS01.106   Secondary Applied Instrument 2
MUS01.205   Secondary Applied Instrument 3
MUS01.206   Secondary Applied Instrument 4
MUS01.305   Secondary Applied Instrument 5
MUS01.306   Secondary Applied Instrument 6

or

MUS01.111   Secondary Applied Voice 1
MUS01.112   Secondary Applied Voice 2
MUS01.211   Secondary Applied Voice 3
MUS01.212   Secondary Applied Voice 4
MUS01.311   Secondary Applied Voice 5
MUS01.312   Secondary Applied Voice 6

Choice I:

MUS04.118   Music Fundamentals
MUS04.110   Sight Singing
MUS04.130   Music Theory I-Written
MUS04.132   Music Theory I-Aural

or

Choice II:

MUS04.130   Music Theory I-Written
MUS04.132   Music Theory I-Aural
MUS04.131   Music Theory II-Written
MUS04.133   Music Theory I-Aural
MUS07.100   Piano Class I (except Piano SAI) and
MUS07.101   Piano Class II (except Piano SAI)
MUSG06.102   General Music History
MUS04.050   Student Recitals (six semesters)

Ensemble I-VI (by audition, see Advisor)

Electives Choose 9 s.h. from the following:

Ensemble Choice

MUS04.240   Music Theory III - Written
MUS04.242   Music Theory III - Aural
MUS04.241   Music Theory IV - Written
MUS04.243   Music Theory IV - Aural
MUSG06.214   Development of Musical Styles I
MUSG06.215   Development of Musical Styles II
MUSG06.335   Development of Musical Styles III
MUS04.450   Form and Analysis
MUS07.212   Conducting-Instrumental I
MUS07.312   Conducting-Instrumental II
MUS07.213   Conducting-Choral I
MUS07.313   Conducting-Choral II
MUS04.404   Orchestration
MUS04.403   Vocal Arranging
MUSG06.100   Signals, Systems and Music
MUSG06.447   Music in World Cultures: Asia & Oceania
MUSG06.448   Music in World Cultures: Africa India, Near & Middle East
MUS04.350   Computer Technology Music I
MUSG06.115   Growth and Development of Jazz
MUS04.333   Stage Band Rehearsal Techniques
MUSG06.439   New Jazz Structures

Note: For comprehensive information on the individual music specializations, students should request from the Department of Music the appropriate curriculum guide which details each specialization and see the Music Minor advisor.

BACHELOR OF ARTS IN DANCE
Leslie Elkins, Ph.D.
Advisor
Memorial Hall
856.256.4231
hostetter@rowan.edu
The Bachelor of Arts in Dance is a professionally oriented performance degree that integrates the study of dance within a liberal arts curriculum. The program provides students with the means to develop their technical and creative potential while learning to express themselves as diverse and informed artists. Our theoretical and practical approach to the art form strives to stimulate physical, emotional, intellectual, and spiritual growth; thus preparing the student for professional careers in dance.

**General Education 51 s.h.**
All students must complete the University General Education requirements as described on page 31

**Rowan Experience**
All students must complete the Rowan Experience requirements as described on page 33

Major sequence of required courses 42 s.h.

| Dance Technique         |  |  |
|-------------------------|-------------------------|
| THD08.237   | Modern II               |
| THD08.377   | Modern III              |
| THD08.378   | Modern IV               |
| THD08.410   | Advanced Styles         |

<table>
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<tr>
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<tr>
<td>THD08.140</td>
<td>Improvisation I</td>
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<td>THD08.465</td>
<td>Dynamics of Human Movement</td>
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*Select one of the following:*

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<tr>
<td>THD07.310</td>
<td>Stagecraft I</td>
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<tr>
<td>or THD07.203</td>
<td>Costuming I (1.5)</td>
</tr>
<tr>
<td>and</td>
<td>Costuming II (1.5)</td>
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</table>

| THD07.724   | Practicum Production    |
| THD07.724   | Practicum Production    |
| THD07.724   | Practicum Production    |
| THD07.724   | Practicum Production    |
| THD07.724   | Practicum Production    |
| THD07.724   | Practicum Production    |
| THD07.345   | Rehearsal and Performance |
| THD07.345   | Rehearsal and Performance |
| THD07.460   | Senior Project          |

Total Credits in BA Degree in Dance 120 s.h.

---

**Department of Theatre and Dance**

**Elisabeth Hostetter, Ph.D.**

**Chair**

209 Wilson Hall
856.256.4034
hostetter@rowan.edu

The Department of Theatre and Dance educates students in the contemporary practice of theatre and dance through a liberal arts curriculum. Our programs offer a path to intellectual and artistic growth and development. Accredited by the National Association of Schools of Theatre, the department provides a broad-based education in theatre and dance with specialized tracks for focused study. Undergraduate students from other majors may also participate in our interdisciplinary activities by choosing to minor, or concentrate, in theatre or dance.

A Bachelor of Arts in Theatre consists of 39 credits in our major and 30 credits of free electives. The Department of Theatre and Dance offers four tracks within the major: Acting, Musical Theatre, Pre-Teaching, and Design/Technical. The four tracks share a core curriculum of theatre arts courses while allowing students to extend study in their chosen field of interest. The free elective hours can be used to complete a minor in a related field.

A full range of theatre and dance production opportunities supplements coursework and encourages students to develop performance and production skills through the creation of live theatre. All students may participate in one or more of the department’s performance opportunities through faculty directed mainstage productions and student organizations. These projects provide students with practical experience as performers, directors, designers and technicians, and allow them to creatively apply methods and skills learned in the classroom.
The Bachelor of Arts in Dance consists of 42 credits in our major and 30 credits of free electives. The Bachelor of Arts in Dance is a professionally oriented performance degree that integrates the study of dance within a liberal arts curriculum. The program provides students with the means to develop their technical and creative potential while learning to express themselves as diverse and informed artists. Our theoretical and practical approach to the art form strives to stimulate physical, emotional, intellectual, and spiritual growth; thus preparing the student for professional careers in dance. The program is grounded in modern practice and offers courses in dance technique, creative studies, theory and performance practicums. The free elective hours can be used to complete a minor in a related field. All students may participate in one or more of the department’s performance opportunities through faculty directed mainstage productions and student organizations. These projects provide students with practical experience as and allow them to creatively apply the methods and skills learned in the classroom.

The Department of Theatre and Dance is currently housed in several campus buildings including Wilson Hall, Bunce Hall, and Memorial Hall. Bunce Hall contains the historic 450-seat Tohill Theatre, rehearsal spaces, a well-equipped costume and scene shop, prop and costume storage, a computer-equipped design studio, and acting studios. Memorial Hall houses our two recently-renovated dance studios. Departmental offices and mainstage performances are also in Wilson Hall, which contains a 900-seat prosenium theatre, smart classrooms and an acting studio.

Admission to the department requires an on-campus interview and audition or portfolio review. Students applying for the BA in Dance must take a master class and be interviewed by faculty. Students auditioning for the Acting Track, and Pre-Teaching Track must present two contrasting one-minute monologues. Students auditioning for the Musical Theatre Track must present 16 bars from two contrasting musical theatre songs and a monologue. Students seeking admission to the Design/Technical Track will present, in an interview, a portfolio or folder demonstrating their experience and ability. For specific information on the interview or audition requirements, visit www.rowan.edu/theatredance or call or email the Department of Theatre and Dance. In order to gain the maximum benefit from the academic flexibility of these degree tracks, students must arrange for regular and careful academic advisement with department faculty.

The Minor in Theatre provides students study in both the practical and scholarly aspects of theatrical art. Students in any program are eligible for the Minor in Theatre and must formally apply and be advised before completing the course requirements.

The Minor in Theatre consists of 19 semester hours of study: 10 semester hours of required courses, plus 9 hours of electives.

The Minor in Dance provides a flexible program of study that combines technique with theory courses. The minor consists of 18-24 hours of study: the core course, Elements of Dance, plus 6-12 hours of technique and 6-12 hours of theory. The Dance Concentration is designed for students in the related arts and humanities disciplines interested in pursuing dance as a supplement to another major. The courses provide a solid framework through which students may pursue selected interests in the areas of performance, history, research and education. The Theatre Design Concentration provides an art major with sufficient background in theatre to seek a position as a set and/or lighting designer or general theatrical technician. The Master of Science in Teaching Theatre Education is a program in the College of Education that offers teaching certification and can be taken as a fifth year option. The MA in Theatre: Arts Administration is an online program that provides students with administrative, business and marketing skills to start their own company or secure positions in regional and national arts organizations.

Contact our department for advisement.

BACHELOR OF ARTS IN THEATRE
Elisabeth Hostetter, Ph.D.
Advisor
209 Wilson Hall
856.256.4034
hostetter@rowan.edu

The Rowan Bachelor of Arts in Theatre features four distinct tracks in Acting, Musical Theatre, Theatre Education/Pre-Teaching, and Design/Technical Theatre, which prepare students to work in the professional field or to pursue graduate study.

General Education
Total General Education Credits 51 s.h.
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33
Major sequence of required courses 39 s.h.
Core Courses all tracks 24 s.h.

| THD07.111 | Colloquium I |
| THD07.112 | Colloquium II |
Any three (3) of the following courses:
- THD07.339 History of the Theatre to 1700
- THD07.340 History of the Theatre from 1700 to 1956
- THD07.440 Contemporary World Theatre (WI)(Lit)
- THD08.436 Dance History

Acting Track 15 s.h.
- THD08.140 Dance Improvisation I
- THD08.141 Dance Improvisation II
- THD07.103 Voice for the Stage
- THD08.126 Movement for the Actor
- THD07.235 Acting I

Musical Theatre Track 15 s.h.
- THD07.103 Voice for the Stage
- THD07.235 Acting I
- THD07.360 Musical Theatre
- THD07.361 Singing for the Actor
- THD08.222 Dance for the Musical Theatre

Pre-Teaching Track 15 s.h.
- THD07.103 Voice for the Stage
- THD08.126 Movement for the Actor
- THD07.235 Acting I
- THD07.250 Children’s Theatre
- THD07.430 Directing I

Design/Tech Track 15 s.h.
- THD07.232 Stagecraft III
- THD07.233 Stagecraft IV
- THD07.234 Stagecraft V
- THD07.335 Stagecraft VI
- THD07.300 Drawing & Rendering
- THD07.310 Foundations of Theatrical Design

Select 3 s.h. from the following electives:
- THD07.350 Scenic Design
- THD07.353 Lighting Design
- THD07.358 Costume Design
- THD07.231 Stagecraft II
- THD07.436 Stagecraft VII
- THD07.437 Stagecraft VIII

Total Credits in BA Degree in Theatre 120 s.h.

MINOR IN THEATRE
Anthony Hostetter, Ph.D.
Advisor
Wilson Hall
856.256.3394
hostettera@rowan.edu

The Minor in Theatre provides students practical and scholarly courses in Theatrical Arts. Students in any program can interview for a Minor in Theatre and should formally apply and be advised before completing the requirements.

The Minor in Theatre Arts consists of 19 semester hours of study: 10 semester hours of required courses, plus 9 hours of electives.

Required Courses 10 s.h.
The Minor in Dance

The Minor in Dance provides a flexible program of study that combines technique with theory. The Minor in Dance consists of 18-24 hours of study: the core course Elements of Dance, plus 6-12 hours of dance technique and 6-12 hours of dance theory.

Required

THD08.135 Elements of Dance

6-12 s.h.

Electives — Technique

THD08.146 World Dance Forms
THD08.202 Fundamentals of Tap
THD08.203 Advanced Tap Dance
THD08.236 Modern Dance I
THD08.237 Modern Dance II
THD08.377 Modern Dance III
THD08.246 Fundamentals of Ballet Dance
THD08.247 Advanced Ballet
THD08.256 Fundamentals of Jazz Dance
THD08.257 Advanced Jazz Dance
THD08.222 Dance for the Musical Stage
THD08.142 Contact Improvisation

Electives — Theory

THD08.225 Dance Composition I
THD08.337 Choreography
THD08.436 Dance History
THD08.316 Creative Dance for Children
THD08.465 Dynamics of Human Movement
THD08.126 Movement for the Actor

3 s.h.
The Dance Concentration is a required 24 s.h. course sequence designed expressly for students interested in pursuing dance in addition to another career. The courses provide a solid framework through which students may pursue selected interests in the areas of performance, history, research and education.

**Dance Concentration Sequence**
- THD08.135 Elements of Dance
- THD08.236 Modern Dance I
- THD08.237 Modern Dance II
- THD08.246 Fundamentals of Ballet Dance
- THD08.247 Advanced Ballet
- THD08.235 Dance Composition I
- THD08.337 Choreography
- THD08.436 Dance History

**THEATRE DESIGN CONCENTRATION**
Marketa Fantova
Advisor
237 Wilson Hall
856.256.4232
fantova@rowan.edu

The purpose of this concentration is to provide art majors with sufficient background in theatre to seek a position as a set and/or lighting designer or general theatrical technician.

**Program Requirements**
Students may follow any BA in Art degree program, but some courses in Puppetry are recommended. In place of free electives, the following courses are required:

**Concentration Courses**
- THD07.310 Foundations of Theatrical Design (3 s.h.)
- THD07.230 Stagecraft I (3 s.h.)
- THD07.203 Costuming I (1.5 s.h.)
- THD07.205 Costuming II (1.5 s.h.)
- THD07.232 Stagecraft III (1.5 s.h.)
- THD07.233 Stagecraft IV (1.5 s.h.)

Elect 3 s.h. of the following graphics electives:
- THD07.300 Drawing & Rendering (3 s.h.)
- THD07.305 Drafting & Model Making (3 s.h.)

Elect 3 s.h. of the following design electives:
- THD07.350 Scene Design (3 s.h.)
- THD07.353 Lighting Design (3 s.h.)
- THD07.356 Costume Design (3 s.h.)

The courses, THD07.130 The Living Theatre or THD07.201 Introduction to Theatre and Dance are recommended in order to give the student a broad introduction and background in the art of theatre.
College of Humanities and Social Sciences

Cindy Vitto
Dean
Bunce Hall 257
856.256.5841
vitto@rowan.edu

Larry Butler
Associate Dean
Bunce Hall 257
856.256.5842
butlerl@rowan.edu

Kristen diNovi
Assistant Dean
Bunce Hall 257
856.256.4851
dinovi@rowan.edu

Mission
The College of Humanities and Social Sciences affirms the humanities and social sciences as the core of liberal arts education and the foundation of professional preparation. The College is committed to excellence in instruction, research, and scholarship. Its disciplines promote extensive interaction between faculty and students, attention to individual development of critical and creative thinking, the building of interdisciplinary communities through partnerships both internal and external, and the development of new knowledge through research and creative activities. The College plays an essential role in Rowan’s mission: to educate students who remain lifelong learners and ethically responsible citizens, sensitive to cultural and ethnic diversity and engaged in advancing our global society.

Departments
The departments in the College are: English, Foreign Languages and Literatures, Geography and the Environment, History, Law and Justice Studies, Philosophy and Religion Studies, Political Science and Economics, and Sociology and Anthropology.

Services
Liberal Arts and Sciences Institute for Research and Community Service
The College operates the Liberal Arts and Sciences Institute for Research and Community Service, which offers a variety of seminars and workshops, as well as research support and community assistance.

CHSS Match Internship Program
In partnership with the Career Management Center, the College of Humanities and Social Sciences coordinates an internship program through which students can earn up to 12 credits through approved internship experiences.

Programs Offered
The College provides General Education courses in the humanities and the social sciences. These courses give our students a breadth of knowledge while developing skills in oral and written communication, critical thinking, and research. Our students go on to acquire a depth of knowledge in one of the major programs in the College. Expert faculty who have distinguished themselves in their disciplines through research, scholarship, and other professional activities help our students learn both in the classroom, through engaging lectures and interactive pedagogical approaches, and outside of the classroom, through research projects. Our faculty care genuinely about the success of our students and make themselves available for advising, mentoring, and academic discussion. Students interested in pursuing a law degree may work with the College’s pre-law advisor and become involved with the Pre-Law Society to prepare for application to law school.

The College offers four interdisciplinary majors: Africana Studies, American Studies, Liberal Studies: Humanities/Social Science, and the General Studies degree completion program. The College also offers minors in most of the disciplines, and concentrations in several disciplines such as African American Studies, Asian Studies, Ethics, Geoscience, International Studies, Planning, Urban Studies, and Women’s and Gender Studies. The minors and concentrations, along with free elective courses, allow students to complete their major area of study in ways that are particularly appropriate to their individual interests and career goals.

The College also houses the Exploratory Studies program for students who have not yet declared a major.
Exploratory Studies
Office of Academic Transition Programs
Savitz Hall, Second Floor

Rory McElwee
Director
856.256.4500 x3776
mcelwee@rowan.edu

Keeley Powell
Assistant Director
856.256.5655
powellk@rowan.edu

Exploratory Studies provides an academic home for students with less than 60 credits who have not yet selected a major. Students in the Exploratory Studies Program are housed within the College of Humanities and Social Sciences. Exploratory Studies students receive professional academic advising from the Center for Academic Advising and Exploration, and support from the Office of Academic Transition Programs, Rowan Seminar, Residential Learning and many other offices on campus. First-year students in the Exploratory Studies Program will be enrolled in the Exploratory Studies Workshop in their first semester to familiarize them with Rowan’s many resources and to begin the process of exploring majors, careers, and their own strengths and interests. Students may remain in Exploratory Studies until they have completed 60 credits (including all transfer credits). Students who have not selected a major at that time will be placed in the Liberal Studies/Humanities and Social Science major. However, most students select a major well before 60 credits. For more information, see www.rowan.edu/exploratorystudies or email exploratorystudies@rowan.edu

Department of English
Joseph Coulombe
Chair
345 Bunce Hall
856.256.4832
coulombe@rowan.edu

The English curriculum includes a study of literature, writing, and the English language. Students have many electives that may be used to strengthen the major, add a double major, or develop fields of specialization. The curriculum provides a general background for careers in various fields such as teaching, journalism, law, personnel, editing, library science and other professions in which the use of the language is important.

BACHELOR OF ARTS IN ENGLISH

General Education
All students must complete the University General Education Requirements as described on page 31

Rowan Requirements
All students must complete the Rowan Experience requirements as described on page 33

Major Requirements 36 s.h.

Required

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<tr>
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<td>ENGL02.309</td>
<td>British Literature to Romanticism</td>
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<td>ENGL02.311</td>
<td>British Literature Since Romanticism</td>
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<td>ENGL02.313</td>
<td>US Literature to Realism</td>
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<td>ENGL02.315</td>
<td>US Literature Since Realism</td>
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<td>ENGL02.345</td>
<td>Shakespeare I</td>
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<td>ENGL02.393</td>
<td>English Seminar I - WI</td>
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<td>ENGL02.394</td>
<td>English Seminar II-WI</td>
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Of the remaining courses needed to fill the major requirements, at least two must be at the 300- or 400-level.

Electives

Total Credits in Program 120 s.h.
MINOR IN ENGLISH
The Minor in English is a modification of the major, reducing the requirements from 36 hours to 24, but providing a balanced, comprehensive cluster of courses.

ENGL02.101 Literary Studies for English Majors
ENGL02.345 Shakespeare I
ENGL02.393 Seminar I
200-level elective
300/400-level elective
3-course survey sequence (Option A or Option B, below)

Option A
ENGL02.309 British Literature to Romanticism
ENGL02.311 British Literature Since Romanticism
ENGL02.113 Readings in US Literature

Option B
ENGL02.313 US Literature to Realism
ENGL02.315 US Literature Since Realism
ENGL02.110 Readings in British Literature

Department of Foreign Languages and Literatures
Laurie Kaplis-Hohwald
Chair
Edgar F. Bunce Hall 309
856.256.4500 X3470
hohwald@rowan.edu

The Department offers a major in Spanish as well as a Coordinate Education major in Spanish. It also offers minors in French, German, Romance Languages and Spanish (18 s.h. each) and participates in the interdisciplinary International Studies Concentration (18 s.h.) as well as offers the Applied Spanish Program Sequence for the Liberal Studies: Humanities / Social Sciences degree. French courses are offered beyond the 18 s.h. minor providing students with the opportunity to accumulate credits toward a second certification.

BACHELOR OF ARTS IN SPANISH
The Spanish program offers a flexible curriculum that makes it possible to develop an intensive study of the Spanish language, its civilization, cultures and literatures. It also provides a general background for future professional studies and advanced degrees in Spanish as well as careers in a variety of fields, such as social, administrative, and governmental work, and international business. Literature courses in translation cannot be counted for credit toward the major or minor nor any course to be transferred in that did not have Spanish as the language of instruction.

All incoming Spanish majors (Freshmen, Internal Transfers and Transfer Students) are required to take the "STAMP" Spanish Placement Examination and to schedule an interview through the University Advising Center (UAC) in Savitz Hall prior to registration. Students of Appreciation of Hispanic Literature (SPAN05.301) are required to take the STAMP Placement Exam a second time for advisement purposes in the major.

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Major Requirements
6 s.h. of a Foreign Language other than Spanish are required. Both courses must be in the same language.

SPAN05.212 Spanish Reading and Composition
SPAN05.301 Appreciation of Hispanic Literature
SPAN05.320 Spanish Civilization and Culture
SPAN05.321 Survey of Spanish Literature I
SPAN05.322 Survey of Spanish Literature II
SPAN05.323 Survey of Spanish American Literature I
SPAN05.329 Survey of Spanish American Literature II
SPAN05.324 Spanish American Civilization and Culture-M/G
SPAN05.410 Advanced Spanish Grammar and Composition
or SPAN05.409 Advanced Spanish Grammar and Composition-WI
SPAN05.411 Advanced Spanish Conversation

One elective from each of the three elective groups below:

Group A: Applied Spanish Electives*
SPAN05.300 Spanish Phonetics
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<td>Oral Spanish</td>
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<td>Spanish for Business A</td>
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<td>Spanish for Medical Personnel</td>
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<td>SPAN05.314</td>
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<td>SPAN05.340</td>
<td>Introduction to Spanish Translation</td>
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**Group B: Peninsular Electives**

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<td>SPAN05.440</td>
<td>Special Topics</td>
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**Group C: Spanish American Electives**

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<td>SPAN05.328</td>
<td>Spanish American Theatre</td>
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<tr>
<td>SPAN05.383</td>
<td>Spanish American Short Story</td>
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<tr>
<td>SPAN05.426</td>
<td>Spanish American Novel</td>
</tr>
<tr>
<td>SPAN05.440</td>
<td>Special Topics</td>
</tr>
</tbody>
</table>

**Free Electives**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
</table>

**Total Credits in Program**: 120 s.h.

*College of Education K-12 Subject Matter Dual Degree Majors are required to take Introduction to Hispanic Linguistics SPAN05.302. Prerequisite: SPAN05.301 or Waiver or Introduction to Spanish Translation SPAN05.340. Prerequisite: SPAN05.212 or Waiver. These courses can be taken as a 300- or 400-level elective in the major.

**MINOR IN FRENCH**

**Sonia B. Spencer**
**Advisor**

**Edgar F. Bunce Hall 307**
**856.256.4044**
**spencers@rowan.edu**

The French Minor is an intensive program of study which offers courses in French language, literature, civilization and culture. It provides a general background for further study in French or for future professional pursuits in a wide variety of fields such as International Studies, education, international business, social, administrative and governmental work. It is most useful to students interested in pursuing a career where knowledge of a second language is desirable. Previous high school preparation in language is recommended but not required.

**French Language Minor**

Any 18 s.h. of French can fulfill the requirements for the minor; prerequisites are strictly enforced. Students must complete at least 9 s.h. of French coursework at Rowan University. The 9 transfer credits may include credits from another institution or from Study Abroad and up to 6 s.h. credited toward Elementary French I and II from the French CLEP. All coursework must be in French. Though many variants exist, a basic course sequence beginning with French I for beginners follows. For more information, contact the Department or visit our webpage.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN02.101</td>
<td>Elementary French I</td>
</tr>
<tr>
<td>FREN02.102</td>
<td>Elementary French II</td>
</tr>
<tr>
<td>FREN02.201</td>
<td>Intermediate French I</td>
</tr>
<tr>
<td>FREN02.211</td>
<td>Intermediate French II</td>
</tr>
<tr>
<td>FREN02.440</td>
<td>Special Topics in Foreign Languages &amp; Literatures</td>
</tr>
</tbody>
</table>

Any two upper level courses offered in French

A student who has two or more years of French in high school may start the minor with the Intermediate courses and may take additional upper level courses in French to fulfill the minor requirements.

**MINOR IN GERMAN STUDIES**

**Edward C. Smith III**
**Advisor**

**Edgar F. Bunce Hall 306**
**856.256.4500 x 3472**
**smithe@rowan.edu**

The German Studies Minor is an intensive program of study which offers courses in German language in addition to German civilization and culture and various interdisciplinary electives taught in English. The German Studies Minor is open to all students and should be of particular interest to students pursuing a career where knowledge of a second language is desirable. Previous high school participation in the language is not required. See the Coordinator of the German Studies Minor to declare the Minor.
German Studies Minor

The Minor consists of 6 courses (18 credits). Students are required to take at least 3 and a maximum of 5 courses within the language component of the program (or receive CLEP Exam credits). Elective courses in other departments can be used toward the Minor:

Courses taught in German

- GERM03.101 Elementary German I
- GERM03.102 Elementary German II
- GERM03.201 Intermediate German I
- GERM03.211 Intermediate German II
- GERM03.212 German Reading & Composition
- GERM03.435 Independent Study in German
- GERM03.320 German Civilization & Culture
- GERM03.440 Special Topics in Foreign Languages & Literatures

Courses Taught in English (The following electives can be taken concurrently with language courses):

- GERM03.100 Masterpieces of German Literature in English Translation (LIT)
- GEOG16.342 Geography of Europe
- HIST05.315 Twentieth Century Europe I
- HIST05.406 Jewish Holocaust 1933-1945
- SOC08.399 Sociology of the Holocaust
- PHIL09.372 German Philosophy (Topics in the History of Philosophy)
- RTF01.402 German Cinema (Special Topics in Ratio/TV/Film)

*All Elementary and Intermediate courses can be used to fulfill general education requirements.

*All Courses must be passed with a letter grade of C- or better. No courses can be taken P/NC.

*Up to 9 s.h. may be transferred into the Minor from Study Abroad or the CLEP exam (from the latter students may receive up to 6 s.h. toward the Minor. For more information concerning this Exam, contact the Center for Academic Success in Savitz Hall.

*A student who has had two or more years of German in high school may start the Minor at the intermediate level and can then take upper level courses to maximize proficiency in the language.

MINOR IN ROMANCE LANGUAGES
Edward C Smith III
Advisor
Edgar F. Bunce Hall 306
856.256.4500 ext. 3472
smithe@rowan.edu

The Minor in Romance Languages offers a flexible curriculum with many opportunities for selection of courses in French, Italian and Spanish. This multi-disciplined area promotes students’ understanding of cultures, develops students’ ability to communicate with other people from other cultures, and develops an awareness of crossing borders in a linguistic and cultural sense. Students also acquire a basic linguistic competence in French, Italian and Spanish. In order to satisfy the requirements for this minor, students must take 21 SH credits in a combination of French, Italian and Spanish. These 21 SH credits may be completed through:

- Taking the courses listed below, each of which is 3 SH credits (All courses must be passed with a letter grade of C- or better and no courses may be taken P/NC.)
- Transferring up to 9 SH into the Romance Languages Minor, including up to 6 SH from the CLEP Exam in French or Spanish (equivalent to 101 and 102). There is no CLEP Exam for Italian. The maximum 9 SH credits transferred into the Romance Languages Minor may also include coursework obtained through Study Abroad, as long as the Study Abroad courses are taught in French, Italian or Spanish.
- Students are required to study 3 semesters in one Romance language and 2 semesters in each of the other two Romance languages. A student pursuing either a major or minor in one of these languages can only apply two of these program courses toward the Minor in Romance Languages. (For example, a Spanish major or minor can only use 2 Spanish courses towards this minor; a French minor can only use 2 French courses towards this minor.)

Basic Romance Language Minor Model

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FREN02.101</td>
<td>Elementary French I</td>
</tr>
<tr>
<td>FREN02.102</td>
<td>Elementary French II</td>
</tr>
<tr>
<td>SPAN05.101</td>
<td>Spanish I</td>
</tr>
<tr>
<td>SPAN05.102</td>
<td>Spanish II</td>
</tr>
<tr>
<td>ITAL04.101</td>
<td>Elementary Italian I</td>
</tr>
<tr>
<td>ITAL04.102</td>
<td>Elementary Italian II</td>
</tr>
</tbody>
</table>

And one third semester course of Spanish, French or Italian: SPAN05.201, FREN02.201 or ITAL04.201.

MINOR IN SPANISH
Dr. Roberto Madero
The Spanish Minor is an intensive program of study which offers courses in Spanish language, civilization and culture. This 18-hour minor is open to all students and is of particular benefit to those majoring in the humanities such as art, music, geography, anthropology, history, business or education. It is also useful to students interested in pursuing the International Studies Concentration or a career where knowledge of a second language is desirable. Previous high school preparation in the language is recommended but not required. A placement exam is strongly recommended so that the student begins the minor at the appropriate level. For placement exam information, please contact Esther Mas Serna at mas@rowan.edu.

Spanish Language Minor 18 s.h.
Any 18 s.h. of Spanish can fulfill the requirements for the minor, however, prerequisites are strictly enforced. Students must complete at least 9 s.h. of Spanish coursework at Rowan University. A basic course sequence beginning with Spanish I for beginners is as follows though many variants exist. For more information, contact the Department or visit our webpage.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPAN05.101</td>
<td>Spanish I</td>
</tr>
<tr>
<td>SPAN05.102</td>
<td>Spanish II</td>
</tr>
<tr>
<td>SPAN05.201</td>
<td>Spanish III</td>
</tr>
<tr>
<td>SPAN05.211</td>
<td>Spanish Reading and Conversation</td>
</tr>
</tbody>
</table>

Any two upper level courses offered in Spanish

Department of Geography and Environment

John Hasse
Chair
Robinson Hall
856.256.4812
hasse@rowan.edu

The mission of the Department of Geography and Environment is academics, research and outreach that focus on understanding the modern globalizing world, protection of the environment and creating a sustainable future through management and planning. To this end the Department offers a variety of programs related to geography and the environment including four baccalaureate degree programs, four minors and five concentrations. The programs include a BA and minor in Geography, a BA and minor in Environmental Studies, a BS and minor in Planning and a BS and minor in GIS. The concentrations include Geoscience, Environmental Science, Applied Geographic Knowledge and Skills (GeoEducation), Geographic Inquiries into Global Issues and Urban Studies. All of these programs integrate theory and practice, blending both academic and applied facets of geography, environment, planning, and geospatial technologies.

The Department houses the Geospatial Research Laboratory (GeoLab) in support of its teaching, research and outreach which includes three state of the art computer labs in which students learn to use the latest, high level GIS software (a site license for the full ESRI package) state-of-the-art hardware platforms and peripherals including large format high resolution plotters and scanners as well as survey quality global positioning system (GPS) receivers. The facilities are used by faculty and staff for research and outreach projects. Students also have full access to these labs in which they can pursue class projects and research, often working directly with faculty members.

Our Department also works closely with the College of Education to ensure that our dual major geography education program meets the requirements and scheduling needs of education majors. All our programs require an internship which provide valuable real-world experience and give our majors a significant advantage in finding employment upon graduation. Our graduates have had a strong track record of employment in well-paying and engaging careers which have made a significant impact on improving the environment and planning for a sustainable future. Our graduates pursue a variety of career path options including continuing their education at the graduate level, teaching elementary or secondary school, working in environmental firms, as planners or as GIS specialists in various agencies, environmental protection departments, engineering firms, software development firms as well as in many other areas.

In order to make our degree programs most convenient for today’s students as well as to allow accelerated completion, we offer many of the courses with an online or hybrid (partially online) option. Some courses may only be available as online or hybrid.

BACHELOR OF ARTS IN GEOGRAPHY

Denyse Lemaire
Program Coordinator
Robinson Hall
856.256.4500 x3976
lemaire@rowan.edu

The discipline of geography focuses on understanding the world across scales from local to global. It is an integrative science that explores the spatial relationships and functional systems of the natural and human world. The geography major at Rowan maximizes flexibility so that students can design a program of study that meets individual interests and career goals.
Geography students complete a common core of 22 s.h. worth of courses and then complete an additional 18+ s.h. of course credit within a specialty area (one of the minors or concentrations offered in the department).

**General Education** 31 s.h.
All students must complete the University General Education requirements as described on page 31

**Rowan Experience** 18 s.h.
All students must complete the Rowan Experience requirements as described on page 33

**Common Core: Required** 22 s.h.
Take two of the three following courses:
- GEOG16.100 Earth, People and Environment
- GEOG16.110 Cultural Geography
- GEOG16.140 World Regional Geography

Take the following five courses:
- GEOG16.160 Intro to the Mapping and Geographic Information Sciences
- GEOG16.290 The History & Methods of Modern Geography
- GEOG16.130 Earth Sciences Lab
- GEOG16.490 Senior Seminar in Geography - WI
- GEOG16.390 Geography Research Clinic/Studio or Internship (note: course waived for education dual majors)

**Geography Program Electives** 18-24 s.h.
Majors must take 6 additional courses offered within the department selected in consultation with the program coordinator. It is highly recommended that these 6 courses are chosen to fulfill one of the concentrations or minors in the department including Concentration in Applied Geographic Knowledge and Skills (for coordinate education dual majors), Concentration in Geoscience, Concentration in Geographic Inquires in Global Issues, Minor in GIS, Minor in Planning, or Minor in Environmental Studies.

**Free Electives** 31 s.h.

**Total Credits for Graduation** 120 s.h.

Note: Coordinate Education-Geography dual majors must use their 18 s.h. of geography program electives to fulfill the requirements for the Concentration in Applied Geographic Knowledge and Skills (see below). Also, Coordinate Education-Geography dual majors can use their student teaching experience in place of GEOG16.390 Geography Research Clinic/Internship. Geography BA majors cannot pursue a double major with BS Planning or BS GIS.

**BACHELOR OF ARTS IN ENVIRONMENTAL STUDIES**
John Hasse
Coordinator
Robinson Hall
856.256.4812
hasse@rowan.edu

The interdisciplinary Bachelor of Arts in Environmental Studies achieves both breadth and focus in its curriculum in order to respond to the growing need for well-rounded, well-trained environmental experts in industry, government, and education. Environmental problems are priority issues of national and global concern. Basic coursework in biology, chemistry, ethics, geography and social sciences, as well as the application of basic science and research methodology to environmental issues are the strengths of the program. The program emphasizes the interdisciplinary aspects of the environment, providing graduates with the necessary background for a variety of environmental positions, as well as placement as strong candidates for graduate programs in environmental sciences. In addition to courses within the Department of Geography and Environment, the program draws an interdisciplinary set of courses from the Departments of Biological Sciences, Chemistry and Biochemistry, Philosophy and Religion, Physics and Astronomy, and Sociology. The major has a requirement of 28 s.h. in a common core, including an internship and Senior Seminar project.

**General Education** 31 s.h.
All students must complete the University General Education requirements as described on page 31

**Rowan Experience** 18 s.h.
All students must complete the Rowan Experience requirements as described on page 33

**Program Requirements** 25 s.h.

- STAT02.260 Statistics I
- PHYS00.150 Physics of Everyday Life
- ANTH02.202 Cultural Anthropology
- ANTH02.221 or Human Variation
- ECON04.101 Macroeconomics
- GEOG16.100 Earth, People and Environment (MG)
- or GEOG16.110 Cultural Geography (MG)
- or GEOG16.140 World Regional Geography (MG)
PHIL 09.369 Philosophy of Science (WI)
Foreign Language Course
Foreign Language Course

Scientific Foundations
CHEM 05.102 Chemistry of Everyday Life ©
BIOL 01.112 General Biology Environmental Focus ©

Social Science Foundations
GEOG 16.160 Introduction to the Mapping and Geographic Information Science ©
SOC 08.120 Intro to Sociology ©

Common Core
ENST 94.101 Environmental Studies - Physical Perspectives ©
ENST 94.102 Environmental Studies - Social Perspectives ©
ENST 94.301 Environmental Ethics ©
ENST 94.321 Field Methods and Research Design for Environmental Studies ©
SOC 08.400 Environment Policy and Society ©
PLAN 31.280 Intro to Planning & Environmental Design ©
ENST 94.401 Senior Seminar in Environmental Studies I ©
GEOG 16.390 Geography Research Clinic/Studio (Internship Experience) ©

Environmental Studies Electives
Majors must take 6 additional courses in consultation with the program coordinator. These courses generally come from the courses offered in the department (see course banks below) but can come from any department provided that they have a connection to environmental issues and tie into the environmental career specialty interests of the student. It is highly recommended that these 6 courses are chosen to fulfill one of the concentrations or minors in the department including Minor in Geography, Minor in GIS, Minor in Planning, Concentration in Environmental Science, Concentration in Geoscience, or Concentration in Geographic Inquires in Global Issues. A minor or concentration in other programs such as Biological Science or Chemistry is also an option.

Free Electives
17 s.h.

Program Total
120 s.h.

Environmental Studies Requirements
2.00 overall G.P.A.
2.5 Major G.P.A.
Environmental Studies Core Courses must receive a ‘C’ or better (classes marked with a ©)

BACHELOR OF SCIENCE IN PLANNING
John Hasse
Coordinator
Robinson Hall
856.256.4812
hasse@rowan.edu

The Bachelor of Science in Planning (B.S.P.) major is a professional degree program that prepares students for graduate school in planning as well as positions in local, state, and federal agencies, private companies, planning departments, engineering firms, and many others. The program introduces students to the diversity of the planning profession while providing an understanding of the broader purpose of planning and the opportunity to focus on practice and application through research and studio credits. It is intended to serve high-achieving students interested in advanced careers in the diverse and dynamic field of planning. The program at Rowan has a special focus on sustainable community design, land conservation and the specific planning practices and challenges of the region.

General Education
31 s.h.

All students must complete the University General Education requirements as described on page 31

Rowan Experience
18 s.h.

All students must complete the Rowan Experience requirements as described on page 33

Introductory Geography Requirements
12 s.h.

Take two of the three following courses:
GEOG 16.100 Earth, People and Environment
GEOG 16.110 Cultural Geography
GEOG 16.140 World Regional Geography

Geography Core:
Take the following four courses:
GEOG 16.160 Introduction to Mapping and Geographic Information Sciences ©
### Planning Core:

*must complete the following seven courses*

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLAN31.280</td>
<td>Introduction to Planning and Environmental Design ©</td>
</tr>
<tr>
<td>GEOG16.302</td>
<td>Urban Geography</td>
</tr>
<tr>
<td>PLAN31.383</td>
<td>Metropolitan &amp; Regional Planning ©</td>
</tr>
<tr>
<td>PLAN31.386</td>
<td>Land Use and Conservation ©</td>
</tr>
<tr>
<td>PLAN31.385</td>
<td>New Jersey Planning Practice ©</td>
</tr>
<tr>
<td>PLAN31.389</td>
<td>Environmental / Sustainable Planning ©</td>
</tr>
<tr>
<td>PLAN31.486</td>
<td>Community Planning &amp; Site Design ©</td>
</tr>
</tbody>
</table>

#### Program Electives

12 s.h.

Must complete four additional courses (12 s.h.) from the Planning or GIS elective banks (see below) chosen in consultation with the Planning Advisor.

#### Planning Specialization

12+ s.h.

Choose 4 elective specialization classes (12 s.h.) in consultation with the Planning Program Director. It is highly recommended that courses chosen contribute to completing a minor or concentration such as GIS Minor, Geoscience Concentration or Environmental Studies Minor.

#### Free Electives

6 s.h.

#### Program Total

120 s.h.

---

### Bachelor of Science in Geographic Information Science (GIS)

John Hasse  
Program Coordinator  
Robinson Hall  
856.256.4812  
hasse@rowan.edu

The Bachelor of Science in Geographic Information Science (B.S.GIS) major is a professional degree program that prepares students for a career in Geospatial Technologies, a rapidly growing technology industry. Graduates of our program are well-prepared for positions in research laboratories, local, state, and federal agencies, private companies, planning departments, engineering firms, and many others. Our students are also excellently prepared for pursuing advanced graduate degree programs. The B.S. GIS program is highly technical providing students with in-depth skills in GIS analysis and programming. It is intended to serve high-achieving students interested in advanced careers in Geospatial Technologies. The program at Rowan has a special focus on web-based mapping, environmental sustainability and the emerging field of geodesign which coordinates well with our planning offerings.

#### General Education

All students must complete the University General Education requirements as described on page 31

#### Rowan Experience

18 s.h.

All students must complete the Rowan Experience requirements as described on page 33

#### Introductory Geography Requirements

Take two of the following three courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG16.100</td>
<td>Earth, People &amp; Environment</td>
</tr>
<tr>
<td>GEOG16.110</td>
<td>Cultural Geography</td>
</tr>
<tr>
<td>GEOG16.140</td>
<td>World Regional Geography</td>
</tr>
</tbody>
</table>

#### Geography Core

12 s.h.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG16.160</td>
<td>Introduction to Mapping and Geographic Information Sciences ©</td>
</tr>
<tr>
<td>GEOG16.290</td>
<td>History and Methods of Modern Geography©</td>
</tr>
<tr>
<td>GEOG16.490</td>
<td>Undergraduate Research Seminar in Geography-WI (Senior Seminar)©</td>
</tr>
<tr>
<td>GEOG16.390</td>
<td>Geography Research Clinic/Studio or Internship</td>
</tr>
</tbody>
</table>

#### Quantitative Courses

6-8 s.h.

Take one of the following sets of two courses

<table>
<thead>
<tr>
<th>Set 1:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>CS01.102</td>
<td>Introduction to Programming</td>
</tr>
</tbody>
</table>
CS04.103 Computer Science and Programming

Set 2:
MATH01.130 Calculus I
MATH01.131 Calculus II

Set 3:
STAT02.260 Statistics I
STAT02.261 Statistics II

GIS Core Requirements
Must take the following six courses
- GEOG16.260 GIS I ©
- GEOG16.360 GIS II ©
- GEOG16.365 Geospatial Modeling ©
- GEOG16.261 Cartography ©
- GEOG16.375 Remote Sensing of the Environment ©
- GEOG16.350 Quantitative Methods in Geography ©

GIS Core Electives
Must complete two additional courses (6 s.h.) from the GIS bank or alternate courses with a clear connection to GIS chosen in consultation with the GIS advisor. ©

GIS Elective Specialization
Choose 4 classes in consultation with the GIS advisor. In order to gain a focused specialization, it is highly recommended that courses chosen contribute to completing a minor or concentration. Some of the fields which make excellent compliments to a BS in GIS include but are not limited to the following: Computer Science Minor, Economics Minor, Environmental Studies Minor, Geoscience Concentration, Law Justice Minor, Planning Minor, Urban Studies Concentration, MIS Minor.

Free Electives
Program Total
18 s.h.
121-123 s.h.

Graduation Requirements (minimum)

B.S. GIS
2.00 Overall G.P.A.
2.5 Major G.P.A.
GIS BS majors must complete all GIS Courses with a 'C' or better (classes marked with ©).

MINOR IN GEOGRAPHY
Total Credits
18-19 s.h.
The Minor in Geography requires students to take two of the following introductory courses (6-7 s.h.):
- GEOG16.100 Earth, People, and Environment (M/G)
- GEOG16.130 Earth Sciences Lab (Lab) 4 s.h.
- GEOG16.110 Cultural Geography (M/G)
- GEOG16.140 World Regional Geography (M/G)
- GEOG16.160 Intro to Mapping and Geographic Information Sciences
Students then select four (4) additional geography courses selected in consultation with the minor advisor.

MINOR IN ENVIRONMENTAL STUDIES
Total Credits
26 s.h.
Fundamental core 6 s.h.
- ENST94.101 Environmental Studies - Physical Perspectives (3 s.h.)
- ENST94.102 Environmental Studies - Social Perspectives (3 s.h.)
Scientific Foundations 8 s.h.
- CHEM05.102 Chemistry of Everyday Life (4 s.h.)
- BIOL01.112 General Biology Environmental Focus (4 s.h.)
Social Science Foundations 6 s.h.
- GEOG16.160 Introduction to the Mapping and Geographic Information Science (3 s.h.)
- SOC08.120 Intro to Sociology (3 s.h.)
Select two of the following three courses.
- ENST94.301 Environmental Ethics (3 s.h.)
- SOC08.400 Environment Policy and Society (3 s.h.)
- GEOG16.260 Geographic Information Systems (GIS) I (3 s.h.)

MINOR IN PLANNING
Total Credits
18 s.h.

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The Minor in Planning requires students to take one of the following introductory courses (3 s.h.):

- GEOG16.100 Earth, People and Environment (M/G)
- GEOG16.110 Cultural Geography (M/G)
- GEOG16.140 World Regional Geography (M/G)

**Must take the following course:**

- PLAN31.280 Introduction to Planning & Environmental Design

Students then select any four (4) other courses from the Planning Bank in consultation with an advisor.

**MINOR IN GEOGRAPHIC INFORMATION SYSTEMS**

**Total Credits** 18 s.h.

The Minor in GIS requires students to take one of the following introductory courses (3 s.h.):

- GEOG16.100 Earth, People and Environment (M/G)
- GEOG16.110 Cultural Geography (M/G)
- GEOG16.140 World Regional Geography (M/G)

**Must take the following two courses:**

- GEOG16.160 Introduction to Mapping and GIS

Students then select any three (9 s.h.) courses from the Geospatial Techniques Bank in consultation with an advisor.

**CONCENTRATION IN APPLIED GEOGRAPHIC KNOWLEDGE AND SKILLS (GeoEducation)**

**Total Credits** 18 s.h.

(replaces previous coordinate education dual major track) Take the following courses (9 s.h.):

- GEOG16.355 Foundations in Geographic Knowledge 3 s.h.
- GEOG16.241 Geography of New Jersey 3 s.h.
- GEOG16.304 Population Geography 3 s.h.

* Take at least one (1) course in the Regional Geography course bank.
* Take any two other geography courses in consultation with the Geoed advisor.

**Note:** For dual majors on track for teacher certification, the Applied Geographic Knowledge and Skills concentration will layer on top of the base geography BA program requirements fulfilling the 18 s.h. of program elective credits. Coordinate education majors are allowed to use their student teaching experience to fulfill the GEOG16.390 requirement for geography.

**CONCENTRATION IN GEOSCIENCE**

**Total Credits** 20 s.h.

Students must take one of the following introductory courses (3 s.h.):

- GEOG16.100 Earth, People and Environment (M/G)
- GEOG16.110 Cultural Geography (M/G)
- GEOG16.140 World Regional Geography (M/G)

**Must take the following two lab courses (8 s.h.)**

- GEOG16.310 Geology I 4 s.h.
- GEOG16.130 Earth Sciences Lab

Then select three (3) courses from the Geosciences Course bank in consultation with the Geoscience advisor.

**CONCENTRATION IN GEOGRAPHIC INQUIRES INTO GLOBAL ISSUES**

**Total Credits** 18 s.h.

**Must take:**

- GEOG16.140 World Regional Geography (M/G)

* Select any two courses from the Geographic Studies Bank (note: courses selected cannot double count for fulfilling geography core requirements)
* Select any two courses from the Regional Bank
* Select any one other Geography course in consultation with the Concentration advisor.

**Note:** (A study abroad experience, field course, or internship related to global issues is strongly recommended and can be used to fulfill the above requirements with prior approval, but is not required at this time. Foreign Language courses are also highly recommended for this concentration.)

**CONCENTRATION IN ENVIRONMENTAL SCIENCE**

**Total Credits** 26 s.h.

**Required:**

- BIOL01.106 Biology 2: Concepts in Genetics
- BIOL01.203 Biology 3: Introduction to Cell Biology
- BIOL01.204 Biology 4: Global Ecology
- CHEM06.101 Chemistry II
Select one additional course in consultation with the environmental program coordinator related to the student’s chosen environmental focus area.

*Note: If this concentration is taken by Environmental Studies majors, they should replace BIOL01.112 Biology Environmental Focus with BIOL01.104 Biology 1 and CHEM05.102 Chemistry of Everyday Life with CHEM06.100 Chemistry I.*

### COURSE BANKS

#### Geographic Studies Bank
- **GEOG16.100** Earth, People & Environment
- **GEOG16.110** Cultural Geography
- **GEOG16.140** World Regional Geography
- **GEOG16.240** Geography of the US and Canada
- **GEOG16.250** Selected Topics in Geography & Environment
- **GEOG16.290** History and Methods of Modern Geography
- **GEOG16.301** Economic Geography
- **GEOG16.302** Urban Geography
- **GEOG16.303** Political Geography
- **GEOG16.304** Population Geography
- **GEOG16.312** Cultural Landscapes
- **GEOG16.391** Directed Geographic Field Experiences
- **GEOG16.490** Senior Research Seminar in Geography
- **GEOG16.491** Independent Study
- **GEOG16.553** Workshop in Geography (graduate level)
- **GEOG16.591** Independent Study (graduate level)

#### Regional Geography Bank
- **GEOG16.140** World Regional Geography
- **GEOG16.240** Geography of the United States and Canada
- **GEOG16.241** Geography of New Jersey
- **GEOG16.342** Geography of Europe
- **GEOG16.343** Geography of Asia
- **GEOG16.344** Geography of Latin America
- **GEOG16.345** Geography of Africa
- **GEOG16.346** Geography of the C.I.S. (former Soviet Union)
- **GEOG16.347** Geography of the Middle East

#### Geosciences Bank
- **GEOG16.100** Earth, People & Environment
- **GEOG16.130** Earth Sciences Lab 4 s.h.
- **GEOG16.330** Geology 1 4 s.h.
- **GEOG16.331** Geology of the National Parks
- **GEOG16.332** Geomorphology
- **GEOG16.334** The Geoscience of Natural Disasters
- **GEOG16.335** Field Studies in Geography
- **GEOG16.338** Climatology
- **GEOG16.370** Remote Sensing/Air Photo Interpretation
- **GEOG16.340** Geology II 4 s.h.
- **GEOG16.131** Principles of Earth Science
- **GEOG16.133** Meteorology 4 s.h.

#### Geospatial Techniques Bank
- **GEOG16.160** Introduction to Mapping and GIS
- **GEOG16.260** Geographic Information Systems I
- **GEOG16.261** Cartography
- **GEOG16.350** Quantitative Methods in Geography
- **GEOG16.300** Geographic Information Systems II
- **GEOG16.301** Geovisualization
- **GEOG16.305** Geospatial Modeling
- **GEOG16.370** Remote Sensing/Air Photo Interpretation
- **GEOG16.371** Remote Sensing II
- **GEOG16.375** Remote Sensing of the Environment
- **GEOG16.460** GEO INFO SYS
- **GEOG16.462** Web Based GIS Mapping
- **GEOG16.565** GIS Topics and Applications (graduate level)

#### Planning Bank
- **GEOG16.160** Introduction to Mapping and GIS
- **PLAN31.280** Introduction to Planning & Environmental Design
- **PLAN31.380** City Planning I
- **PLAN31.383** Metropolitan/Regional Planning
Department of History

William D. Carrigan
Chair
Robinson Hall
856.256.4819
carrigan@rowan.edu

With faculty specialties ranging from ancient to modern history, covering U.S, Europe, Latin America, East Asia, Africa, Russia, and the Middle East, the History Department offers students the opportunity both to develop an understanding of broad currents in history and to specialize in a particular area. Students learn how to do historical research, analyze and synthesize information, and present their ideas orally and in writing. Majors are also required to take six semester hours of a foreign language.

Students considering a major in history are urged to consult a history advisor early in their academic program in order to build a logical program leading to their goal, be it graduate school, professional school, or post-baccalaureate employment. In addition, students are encouraged to earn up to 15 credits in a semester abroad program sponsored by the University. For further clarifications regarding the program, they may consult the department chairperson.

History majors must have a minimum 2.0 overall G.P.A. and minimum 2.5 in all history courses to qualify for graduation.

Portfolio (not for credit): All history majors must submit a portfolio on a DVD that includes their Historical Methods and Seminar paper plus four of the fourteen items listed below. A completed portfolio, which is submitted at the end of Senior Seminar, should have a total of six items. For more information about the portfolio requirements, visit the following History Department Website, http://www.rowan.edu/history.

Students should submit any four of the following assignments with their portfolio

1. Historical Essay
2. Research Proposal
3. Research Paper
4. Abstract of Book or Article
5. Critical Book Review
6. Peer Assessment
7. Film Review
8. Historiographical Essay
9. Periodical Literature
10. Historical Fiction
11. Document Analysis
12. Data Analysis
13. Image Analysis
14. Website Review

General Education

All History majors must complete the University General Education requirements as described on page 31.
Rowan Experience
All History majors must complete the Rowan Experience requirements as described on page 33

BACHELOR OF ARTS IN HISTORY
Corinne Blake
Associate Chair and Advisor
Robinson Hall
blake@rowan.edu
856.256.4500, x3991

Program Requirements
Foundational Courses 18 s.h.
(These courses also count as Social & Behavioral Sciences General Education courses)
- Any Economics course from the Social & Behavioral bank
- Any Political Science course from the Social & Behavioral bank
- Any General Education Multicultural/Global (M/G) Geography or Anthropology course
(Core Courses 12 s.h.
- HIST05.100 Western Civilization to 1660
- HIST05.101 Western Civilization Since 1660
- HIST05.120 World History Since 1500
- Any Level History Elective*
- ENGL02.116 Readings in Non-Western Literatures
- Foreign Language I
- Foreign Language II (Foreign Language I and II must be in the same language)
Upper Level History Electives 15 s.h.
- Five Upper Level (300/400) History Courses
(Upper Level History Electives 15 s.h.
- Five Upper Level (300/400) History Courses
(Two of the five courses must be in global history: Africa, Asia, Latin America, the Middle East, and/or Russia; Topics in History courses count as upper level histories)
Capstone Requirement 3 s.h.
- HIST05.492 Seminar (Seniors only)

BACHELOR OF ARTS IN HISTORY WITH SPECIALIZATION IN UNITED STATES HISTORY
The specialization in United States History offers a structured program of study for history majors interested in gaining an in-depth understanding of the United States within the discipline of history. Students who fulfill the requirements of this program will earn a B.A. in History with a Specialization in United States History. The specialization provides a coherent plan of study that prepares motivated students for graduate study or professional work in their chosen area and recognizes their efforts on their transcript.

Program Requirements
Foundational Courses 24 s.h.
(These courses also count as Social and Behavioral Sciences General Education courses)
- Any Economics course from the Social and Behavioral Sciences Bank
- Any Political Science course from the Social and Behavioral Sciences Bank (Recommended: POSC07.110: American Government)
- Any General Education Multicultural/Global (M/G) course in Geography or Anthropology
(Core Courses 15 s.h.
- HIST05.100 Western Civilization to 1660
- HIST05.120 World History Since 1500
- Any Level History Elective*
- ENGL02.116 Readings in Non-Western Literatures
- Four semesters of foreign language, preferably in the same language, but in no more than two languages.
- HIST05.306 Historical Methods (WI) (required before taking upper level electives)
### Upper Level History Electives

1. At least two of the following 300/400 level History electives:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST05.328</td>
<td>Colonial North America</td>
</tr>
<tr>
<td>HIST05.339</td>
<td>History of the Revolution and Early Republic</td>
</tr>
<tr>
<td>HIST05.321</td>
<td>United States History, 1820-1861</td>
</tr>
<tr>
<td>HIST05.322</td>
<td>Civil War and Reconstruction</td>
</tr>
<tr>
<td>HIST05.329</td>
<td>Gilded Age</td>
</tr>
<tr>
<td>HIST05.328</td>
<td>America War to War</td>
</tr>
<tr>
<td>HIST05.375</td>
<td>America after 1945</td>
</tr>
</tbody>
</table>

2. Any two additional 300/400 level History electives in United States History. Students may satisfy this requirement by taking any of the courses listed below, for example, and/or by taking any other upper level history course or Topics in History (HIST 05.429) related to United States History.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST05.376</td>
<td>African American History to 1865</td>
</tr>
<tr>
<td>HIST05.377</td>
<td>African American History Since 1865</td>
</tr>
<tr>
<td>HIST05.475</td>
<td>History of New Jersey</td>
</tr>
<tr>
<td>HIST05.470</td>
<td>Issues in American History</td>
</tr>
<tr>
<td>HIST05.425</td>
<td>Women in American History</td>
</tr>
<tr>
<td>HIST05.334</td>
<td>Urban History of US</td>
</tr>
<tr>
<td>HIST05.472</td>
<td>Cultural History of U.S.</td>
</tr>
<tr>
<td>HIST05.436</td>
<td>U.S. Home front, 1940-1945</td>
</tr>
<tr>
<td>HIST05.474</td>
<td>US Labor History</td>
</tr>
<tr>
<td>HIST05.471</td>
<td>History of American West</td>
</tr>
<tr>
<td>HIST05.371</td>
<td>US Legal and Constitutional History to 1870</td>
</tr>
<tr>
<td>HIST05.372</td>
<td>US Legal and Constitutional History Since 1870</td>
</tr>
<tr>
<td>HIST05.412</td>
<td>Intellectual History of the U.S.</td>
</tr>
<tr>
<td>HIST05.414</td>
<td>Diplomatic History of the U.S. to 1900</td>
</tr>
<tr>
<td>HIST05.415</td>
<td>Diplomatic History of the U.S. Since 1900</td>
</tr>
<tr>
<td>HIST05.473</td>
<td>American Military History</td>
</tr>
<tr>
<td>HIST05.438</td>
<td>History Vietnam War</td>
</tr>
<tr>
<td>HIST05.407</td>
<td>History of World War II</td>
</tr>
</tbody>
</table>

3. Any two 300/400 level History electives in Global History (History of Africa, Asia, Latin America, Middle East, and Russia).

4. Any one additional 300/400 level History elective, in Global, European, and/or U.S. History.

**Capstone Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST05.492</td>
<td>Seminar (Seniors only)</td>
</tr>
</tbody>
</table>

Students are encouraged to focus some of their non-program and free electives on courses related to the United States.

### Recommended:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC08.120</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>GEOG16.240</td>
<td>Geography of US and Canada</td>
</tr>
<tr>
<td>ENGL02.113</td>
<td>Readings in U.S. Literature</td>
</tr>
<tr>
<td>ECON04.205</td>
<td>American Economic History</td>
</tr>
<tr>
<td>PHIL09.325</td>
<td>American Philosophy</td>
</tr>
<tr>
<td>POSC07.400</td>
<td>American Political Thought</td>
</tr>
</tbody>
</table>

### History Department Required Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
</table>

### General Education, Rowan Experience, and Free Electives

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</table>

### Total Credits

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
</table>

### BACHELOR OF ARTS IN HISTORY WITH SPECIALIZATION IN EUROPEAN/ANCIENT HISTORY

The specialization in European/Ancient History offers a structured program of study for history majors interested in gaining an in-depth understanding of Europe or the Ancient World within the discipline of history. Students who fulfill the requirements of this program will earn a B.A. in History with a Specialization in European/Ancient History. The specialization provides a coherent plan of study that prepares motivated students for graduate study or professional work in their chosen area and recognizes their efforts on their transcript.

Students are encouraged to specialize in a particular area or period related to Europe/Ancient world in their choice of upper level History courses, language study, and non-program and free electives.

### Study Abroad
Students pursuing a specialization in European/Ancient History are strongly encouraged to spend at least one semester studying abroad.

**Program Requirements**

**Foundational Courses**

(These courses also count as Social and Behavioral Sciences General Education courses)

- Any Economics course from the Social and Behavioral Sciences Bank
- Any Political Science course from the Social and Behavioral Sciences Bank (Recommended: POSC07.230 Comparative Political Systems)
- Any General Education Multicultural/Global (M/G) course in Geography or Anthropology

(These courses also count as Humanities General Education courses)

- ENGL02.116 Readings in Non-Western Literatures
- Four semesters of foreign language, preferably in the same language, but in no more than two languages.
  (Recommended for Ancient Focus: Latin. Recommended for Modern Focus: French, German, Italian, Spanish.)

**Core Courses**

24 s.h.

- HIST05.100 Western Civilization to 1660
- HIST05.101 Western Civilization Since 1660
- HIST05.120 World History Since 1500
- HIST05.150 United States to 1865
  or HIST05.151 United States Since 1865
- HIST05.306 Historical Methods (W/I) (required before taking upper level electives)

**Upper Level History Electives**

21 s.h.

1. Any four 300/400 level History electives in European and/or Ancient history and/or related global history. Students may satisfy this requirement by taking any of the courses listed below and/or by taking any other upper level history course or Topics in History (HIST05.429) or Global Topics in History (HIST05.443) related to European or Ancient history.

- HIST05.307 Ancient Mediterranean World
- HIST05.310 Medieval Europe
- HIST05.311 Renaissance and Reformation
- HIST05.312 Age of Enlightenment
- HIST05.313 Age of Revolution
- HIST05.315 20th Century Europe I
- HIST05.316 20th Century Europe II
- HIST05.318 Ancient Greece
- HIST05.431 Imperialism and Colonialism
- HIST05.314 Europe 1871-1914
- HIST05.379 Ancient Egypt
- HIST05.418 Women in Europe to 1700
- HIST05.419 Women in Modern Europe
- HIST05.410 European Intellectual History
- HIST05.317 Victorian England

2. Any two 300/400 level History electives in Global History (History of Africa, Asia, Latin America, Middle East, and Russia).

3. Any additional 300/400 level History elective in Global, European, and/or United States History.

**Capstone Course**

3 s.h.

- HIST05.492 Seminar (Seniors only)

Students are encouraged to focus some of their non-program and free electives on courses related to European and or Ancient studies.

**Recommended**

- GEOG16.342 Geography of Europe
- ANTH02.350 Comparative Cultures
- ANTH02.202 Cultural Anthropology
- ANTH02.202 Introduction to Archeology
- CMS04.290 Rhetorical Theory
- ENGL02.309 British Literature I
- ENGL02.311 British Literature II
- ENGL02.330 Classical Literature in Translation
- ENGL02.430 Anglo-Saxon and Medieval Literature
- ENGL02.440 Chaucer
- GEOG16.347 Geography of the Middle East
- POSC07.346 Politics and Society of Great Britain
- POSC07.420 International Law
BACHELOR OF ARTS IN HISTORY WITH SPECIALIZATION IN GLOBAL HISTORY

The specialization in Global History offers a structured program of study for history majors interested in gaining an in depth understanding of global history or one region of the world—Africa, East Asia, Latin America, Middle East, or Russia—within the discipline of history. Students who fulfill the requirements of this program will earn a B.A. in History with a Specialization in Global History. The specialization provides a coherent plan of study that prepares motivated students for graduate study or professional work in their chosen area and recognizes their efforts on their transcript.

Students are encouraged to specialize in a particular area of the world—Africa, East Asia, Latin America, the Middle East, or Russia in their choice of History courses, language study, and non-program and free electives.

Study Abroad
Students pursuing a specialization in Global History are strongly encouraged to spend at least one semester studying abroad in a non-English speaking country.

Program Requirements

Foundational Courses

(These courses also count as Social and Behavioral Sciences General Education Courses)

- Economics course from the Social and Behavioral Sciences Bank
- Any Political Science course from the Social and Behavioral Sciences Bank (Recommended: POSC.07.230 Comparative Political Systems)
- Any General Education Multicultural/Global (M/G) course in Geography or Anthropology (Recommended: GEOG.16.140 World Regional Geography)

(These courses also count as Humanities General Education courses)

- ENGL.02.116 Readings in Non-Western Literatures
- Four semesters of foreign language, preferably in the same language, but in no more than two languages.

Core Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST.05.100</td>
<td>Western Civilization to 1660</td>
</tr>
<tr>
<td>HIST.05.101</td>
<td>Western Civilization Since 1660</td>
</tr>
<tr>
<td>HIST.05.120</td>
<td>World History Since 1500</td>
</tr>
<tr>
<td>HIST.05.150</td>
<td>United States to 1865</td>
</tr>
<tr>
<td>HIST.05.151</td>
<td>United States Since 1865</td>
</tr>
<tr>
<td>HIST.05.306</td>
<td>Historical Methods (W/I) (required before taking upper level electives)</td>
</tr>
</tbody>
</table>

Upper Level History Electives

1. Any four 300/400 level History electives in global history. Students may satisfy this requirement by taking any of the courses listed below, for example, and/or by taking any other upper level global history course or Global Topics in History (HIST.05.449).

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST.05.394</td>
<td>Sub-Saharan African to 1800</td>
</tr>
<tr>
<td>HIST.05.397</td>
<td>Sub-Saharan Africa since 1800</td>
</tr>
<tr>
<td>HIST.05.437</td>
<td>20th Century African Nationalism</td>
</tr>
<tr>
<td>HIST.05.413</td>
<td>Comparative Race Relations</td>
</tr>
<tr>
<td>HIST.05.351</td>
<td>Modern Japan</td>
</tr>
<tr>
<td>HIST.05.355</td>
<td>Modern China</td>
</tr>
<tr>
<td>HIST.05.356</td>
<td>Late Imperial China</td>
</tr>
<tr>
<td>HIST.05.408</td>
<td>Chinese Cultural History</td>
</tr>
<tr>
<td>HIST.05.446</td>
<td>Race, Identity, and History in East Asia</td>
</tr>
<tr>
<td>HIST.05.347</td>
<td>Traditional Latin America</td>
</tr>
<tr>
<td>HIST.05.350</td>
<td>Modern Latin America</td>
</tr>
<tr>
<td>HIST.05.409</td>
<td>Latin American Revolutions/ Reform</td>
</tr>
<tr>
<td>HIST.05.362</td>
<td>History of Mexico &amp; Caribbean</td>
</tr>
<tr>
<td>HIST.05.411</td>
<td>Topic in Latin America</td>
</tr>
<tr>
<td>HIST.05.381</td>
<td>Islamic Civilizations</td>
</tr>
<tr>
<td>HIST.05.308</td>
<td>Modern Middle East</td>
</tr>
<tr>
<td>HIST.05.404</td>
<td>Arab-Israeli Conflict</td>
</tr>
<tr>
<td>HIST.05.417</td>
<td>Women in Islam</td>
</tr>
<tr>
<td>HIST.05.439</td>
<td>Ottoman Empire</td>
</tr>
</tbody>
</table>
2. Any three additional 300/400 level History electives, in Global, European, and/or United States History.

Capstone Course  

HIST05.492  
Seminar (Seniors only)  

Students are encouraged to focus some of their non-program and free electives on courses related to international studies and their area of specialization.

Recommended  

ANTH02.350  
Comparative Cultures  

ANTH02.202  
Cultural Anthropology  

ANTH02.371  
Anthropological Approaches to Culture Change  

ECON04.303  
Principles of Economics: Global Perspective  

GEOG16.110  
Cultural Geography  

LAWJ05.330  
Problems in World Justice  

PHIL09.211  
World Philosophy I  

POSC07.321  
Contemporary World Problems  

POSC07.420  
International Law  

POSC07.421  
International Organizations  

REL10.200  
Religions of the World  

Students should also consider courses that focus on a particular area, especially their area of specialization.

History Department Required Courses  

General Education, Rowan Experience, and Free Electives  

Total Credits

MINOR IN HISTORY

The Minor in History is designed to address the needs of students in other fields who wish to gain a broad base in the humanities and social sciences by incorporating historical perspectives into their majors and thus enhance their ability to reach higher levels of achievement in their own professional specialization.

The curriculum consists of 18 credits in History, including:

1. At least one course, at either the introductory or advanced level, must be taken in each of the following areas of concentration: American, European and Global

2. At least three courses at the 300 or 400 level

3. Minors must maintain at least a 2.5 GPA in history courses

4. Minors are encouraged to take HIST05.306, Historical Methods (WI)

Students pursuing the minor should plan their courses in collaboration with a Department of History advisor in addition to an advisor from their major.

The Bachelors of History/Masters of History (or 4+1 History) Program

This unique program allows a student to earn both a Bachelor's degree and a Master's degree in history in only five years. Students in the program will be allowed to register for up to 12 graduate credits during their senior year, to pay the undergraduate rate for those credits, and to double-count those credits toward both degrees. Such a program offers great financial, educational and marketability advantages to students. Admission into the program is selective and competitive.

Stage One of the Program. Students at this stage are considered "4+1" students by the Department of History but retain their undergraduate status with the Registrar's Office.

To be advanced to Stage Two of the program, students in Stage One will need to maintain a 3.3 GPA in history courses. If they do this, they will be automatically admitted to Stage Two in the Spring semester of their junior year. Please note that students in their junior year may apply directly into Stage Two if they have the requisite GPA, a grade of at least B- in Methods, and a faculty recommendation.

Stage Two is completed during a candidate's fourth year, a time during which they have a new designation with the Registrar's Office and will take at least two and up to four graduate courses at the undergraduate rate. At the end of the fourth year, students will move on to Stage Three, where they will now be considered graduate students by the University.

The Master's program requires completion of ten courses, including Readings and Research I and Readings and Research II. Students may choose to complete a two-semester thesis in their fifth year. The thesis counts as two of the ten required courses.

The 4+1 coordinator, William Carrigan, will assist with academic issues throughout the program, including course selection, program requirements, departmental policies, or awarded credit. Applications are reviewed on a rolling basis but ideally should be received no later than February 1 of the candidate's junior year.

More information can be found at: http://www.rowan.edu/history.
The Law and Justice Studies program represents an interdisciplinary approach to the study of crime and the functioning of criminal law and the criminal justice system. It prepares students for professional careers in four major areas: law enforcement and security services, court services, corrections, and human services. Since many of the students who enter the program express an interest in preparation for graduate study and professional schools, the program also offers majors the rigorous preparation necessary to achieve such goals.

The program admits high school graduates at the freshman level and transfer students from community and four-year colleges. Upon notification of acceptance by Rowan University, students should contact the department secretary for assignment to a faculty advisor. The advisor develops with the student an individualized program of study. An internship in an appropriate criminal justice or related agency is required in order to provide students with experience, making their classwork more meaningful.

**BACHELOR OF ARTS IN LAW AND JUSTICE STUDIES**

Students are required to earn a C- or better in all Law and Justice Studies major courses. Students are also required to earn a C- or better in the following required courses:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL09.110</td>
<td>The Logic of Everyday Reasoning</td>
</tr>
<tr>
<td>PHIL09.241</td>
<td>Philosophy and Society</td>
</tr>
<tr>
<td>SOC08.221</td>
<td>Social Problems</td>
</tr>
<tr>
<td>PSY01.107</td>
<td>Essentials of Psychology</td>
</tr>
<tr>
<td>POSC07.110</td>
<td>American Government</td>
</tr>
<tr>
<td>POSC07.100</td>
<td>Introduction to Government &amp; Politics</td>
</tr>
<tr>
<td>PHIL09.110</td>
<td>The Logic of Everyday Reasoning</td>
</tr>
<tr>
<td>PHIL09.241</td>
<td>Philosophy and Society</td>
</tr>
<tr>
<td>PSY01.107</td>
<td>Essentials of Psychology</td>
</tr>
</tbody>
</table>

No courses in which the student has earned a grade of less than C- can be applied towards completing the Law and Justice Studies major. A maximum of 67 s.h. can be transferred from community colleges into the Law and Justice major. Law and Justice majors need to be enrolled at Rowan University during the semester prior to graduation.

Rowan students majoring in fields other than Law and Justice Studies may elect to take courses in the department either as part of their general education requirements, as recommended requirements, as free electives, or as a minor in Law and Justice Studies.

**General Education**

All students must complete the University General Education Requirements as described on page 31

**The Rowan Experience**

All students must complete the University Rowan Experience Requirements as described on page 33

**Other Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC08.221</td>
<td>Social Problems</td>
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<tr>
<td>POSC07.110</td>
<td>American Government</td>
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<tr>
<td>PSY01.107</td>
<td>Essentials of Psychology</td>
</tr>
</tbody>
</table>

**Outside Free Electives**

Note: It is strongly recommended that the student consult a faculty advisor for assistance in making these choices.

**Major Requirements**

Students must take a minimum of 36 semester hours, including 24 semester hours of core course requirements and 12 semester hours of electives within the major.

**Required Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWJ05.202</td>
<td>American Police</td>
</tr>
<tr>
<td>LAWJ05.201</td>
<td>Introduction to Courts</td>
</tr>
<tr>
<td>LAWJ05.200</td>
<td>Introduction to Corrections</td>
</tr>
<tr>
<td>LAWJ05.175</td>
<td>Survey of Criminal Justice</td>
</tr>
<tr>
<td>LAWJ05.255</td>
<td>Criminal Law</td>
</tr>
<tr>
<td>LAWJ05.356</td>
<td>Criminal Justice Internship I</td>
</tr>
<tr>
<td>LAWJ05.369</td>
<td>Theories of Crime &amp; Criminality</td>
</tr>
<tr>
<td>LAWJ05.380</td>
<td>Criminal Justice Research</td>
</tr>
</tbody>
</table>
LAWJ05.401  Law and Human Rights
LAWJ05.469  Seminar WI

*Note:* Criminal Justice Internship - LAWJ05.356: Under special and unusual circumstances, this course may be waived as a required course by the departmental academic advisor, and other coursework may be substituted, where appropriate.

**Law & Justice Elective Offerings**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWJ05.120</td>
<td>Intro to Security</td>
</tr>
<tr>
<td>LAWJ05.205</td>
<td>Minorities, Crime, and Criminal Justice</td>
</tr>
<tr>
<td>LAWJ05.210</td>
<td>Restorative Justice</td>
</tr>
<tr>
<td>LAWJ05.220</td>
<td>Victimology</td>
</tr>
<tr>
<td>LAWJ05.274</td>
<td>Criminal Justice and Community Relations</td>
</tr>
<tr>
<td>LAWJ05.276</td>
<td>Parole, Probation and Community Corrections</td>
</tr>
<tr>
<td>LAWJ05.285</td>
<td>Criminal Investigation</td>
</tr>
<tr>
<td>LAWJ05.290</td>
<td>Forensic Law</td>
</tr>
<tr>
<td>LAWJ05.305</td>
<td>Law and Evidence</td>
</tr>
<tr>
<td>LAWJ05.310</td>
<td>Criminal Jurisprudence</td>
</tr>
<tr>
<td>LAWJ05.312</td>
<td>Criminal Procedure I</td>
</tr>
<tr>
<td>LAWJ05.315</td>
<td>Criminal Justice and Social Conflict</td>
</tr>
<tr>
<td>LAWJ05.320</td>
<td>Civil Aspects of Law Enforcement</td>
</tr>
<tr>
<td>LAWJ05.322</td>
<td>Drugs and Crime in America</td>
</tr>
<tr>
<td>LAWJ05.323</td>
<td>Maritime Crime and Criminality</td>
</tr>
<tr>
<td>LAWJ05.324</td>
<td>Sentencing and the Rights of the Convicted</td>
</tr>
<tr>
<td>LAWJ05.325</td>
<td>Comparative Criminal Justice</td>
</tr>
<tr>
<td>LAWJ05.330</td>
<td>Problems of World Justice</td>
</tr>
<tr>
<td>LAWJ05.335</td>
<td>Criminal Procedure II</td>
</tr>
<tr>
<td>LAWJ05.337</td>
<td>Treatment of the Offender</td>
</tr>
<tr>
<td>LAWJ05.342</td>
<td>Counseling and Guidance of the Offender</td>
</tr>
<tr>
<td>LAWJ05.346</td>
<td>Women, Crime and Criminal Justice</td>
</tr>
<tr>
<td>LAWJ05.356</td>
<td>Criminal Justice Internship II</td>
</tr>
<tr>
<td>LAWJ05.361</td>
<td>Intro to Juvenile Justice</td>
</tr>
<tr>
<td>LAWJ05.379</td>
<td>Political Prisoner</td>
</tr>
<tr>
<td>LAWJ05.392</td>
<td>Criminal Justice Administration</td>
</tr>
<tr>
<td>LAWJ05.395</td>
<td>Incarceration Experience</td>
</tr>
<tr>
<td>LAWJ05.415</td>
<td>Selected Topics in Criminal Justice</td>
</tr>
</tbody>
</table>

Total semester hours in program: 120 s.h.

**MINOR IN LAW AND JUSTICE STUDIES**

**Dr. Christine Saum**

Advisor

Campbell Library, 5th Floor
856.256.4500, x3541
saum@rowan.edu

A minor consisting of 21 s.h. in Law and Justice Studies is available to all students. Students minoring in Law and Justice Studies must take the following classes:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWJ05.175</td>
<td>Survey of Criminal Justice</td>
</tr>
<tr>
<td>LAWJ05.309</td>
<td>Theories of Crime and Criminality</td>
</tr>
<tr>
<td>LAWJ05.355</td>
<td>Criminal Law</td>
</tr>
</tbody>
</table>

In addition, students must take any Four (4) additional Law and Justice Studies courses. Students must earn a C- or better in all courses for the minor. To declare the minor, go to the University Advising Center in room 323 Savitz Hall - (856) 256-4459.

Total semester hours for Minor program: 21 s.h.

**Department of Philosophy and Religion Studies**

**Ellen Miller**

Department Chair

Edgar F. Bunce Hall, Suite 315
856.256.4835
millere@rowan.edu

The study of philosophy and religion acquaints students with some of the world’s great intellectual, cultural and religious traditions, equips them with skills in critical thinking, and engages them in reflection on values, ideas and practices crucial to the modern world. Students graduating with a major in these disciplines are well prepared for a variety of careers, as well as for admission to graduate study in Philosophy or in Religion Studies. They also regularly score in the top percentiles on various graduate admission tests, including the Graduate Record Examination, the Law School Admission Test, and the...
Graduate Management Admission Test.
The department offers an interdisciplinary Bachelor of Arts in Philosophy and Religion Studies, with specializations in either Philosophy or Religion Studies. All majors get a foundation in both disciplines by taking Introduction to Philosophy and Religions of the World, and must take at least one additional course from the departmental discipline in which they are not specializing, as well as the interdisciplinary Senior Seminar in Philosophy and Religion Studies.

Other department programs include a minor in Philosophy, a minor in Philosophy and Religion Studies, a concentration in Philosophy and Religion Studies and a concentration in Bioethics and the Philosophy in Medicine, and a concentration in Ethics.

BACHELOR OF ARTS IN PHILOSOPHY AND RELIGION STUDIES

General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

SPECIALIZATION IN PHILOSOPHY
Ellen Miller
Department Chair
Edgar F. Bunce Hall, Suite 315
856.256.4835
millere@rowan.edu

Foundational requirements 24 s.h.

HIST05.100 Western Civilization to 1660
or HIST05.101 Western Civilization since 1660
or HIST05.120 World History since 1600
(Any of these courses also counts as a Humanities General Education course.)

PHIL09.120 Introduction to Philosophy
or PHIL09.121 Introduction to Philosophy - WI
REL10.200 Religions of the World
PHIL09.110 Logic of Everyday Reasoning
or PHIL09.130 Introduction to Symbolic Logic
PHIL09.250 Introduction to Ethics
or PHIL09.251 Introduction to Ethics WI
PHIL09.211 World Philosophy I
PHIL09.213 World Philosophy II
PHIL09.370 Epistemology
or PHIL09.371 Epistemology - WI
or PHIL09.226 Philosophy of Mind
or PHIL09.227 Philosophy of Mind - WI

Mid-level requirements 15 s.h.

PHIL09.372 Topics in the History of Philosophy (may be taken more than once)
One 200+ Level and two 300+ level Philosophy (PHIL 09) electives 9 s.h.

One 200+ level interdisciplinary or PHRE course that fulfills the requirements for non-western philosophy and religion studies (e.g., Asian Thought, or Selected Topics in Philosophy and Religion Studies)(3 s.h.).

Capstone requirements 3 s.h.

PHRE11.490 Senior Seminar in Philosophy and Religion Studies

Portfolio (not for credit) In consultation with his or her advisor, the student prepares a portfolio of best work from his or her work in the department, together with reflections on his or her progress in the major.

Total Departmental Requirements: 42 s.h.
Total General Education, Rowan Experience, and electives: 78 s.h.
Total Credits in Program: 120 s.h.

SPECIALIZATION IN RELIGION STUDIES
Youru Wang
Advisor
Edgar F. Bunce Hall, Suite 315
856.256.4077
wang@rowan.edu

Foundational requirements 24 s.h.

HIST05.100 Western Civilization to 1660
College of Humanities and Social Sciences

(This also counts as a Humanities General Education course.)

- ENGL02.116 Readings in non-Western Literatures
- PHIL09.120 Introduction to Philosophy - WI
- or PHIL09.121 Introduction to Philosophy
- REL10.200 Religions of the World

Mid-level requirements 27 s.h.
Nine courses from the following list, or approved substitutes (5 must be 300 level or above, 5 must be taken from the department).

One must be a philosophy course, one must be an ethics course (the same course can fulfill both requirements). Please check on the list of all philosophy courses offered by the department.

- REL10.214 Religions of the Western World
- REL10.230 Religions of Asia
- PHRE11.310 Introduction to Buddhism
- PHIL09.330 Asian Thought
- REL10.240 Introduction to the Bible
- REL10.301 Introduction to Judaism
- REL10.320 Introduction to Christianity
- PHRE11.330 Introduction to Daoism
- REL10.210 Religion in America
- SOC08.120 Sociology of Religion
- ANTH02.323 Magic and Religion
- ANTH02.310 Indians of North America
- ANTH02.210 Indians of South America
- HIST05.307 Ancient Mediterranean World
- HIST05.377 African American History Since 1865
- HIST05.417 Women in Islam
- HIST05.394 Sub-Saharan Africa to 1800
- HIST05.397 Sub-Saharan Africa since 1800
- PHRE11.300 Philosophy of Religion
- REL10.340 Selected Topics in Religion Studies (repeatable)
- PHRE11.340 Selected Topics in Philosophy and Religion Studies (repeatable)
- PHIL09.392 Contemporary Moral Problems
- or PHIL09.393 Contemporary Moral Problems WI
- PHIL09.250 Introduction to Ethics
- or PHIL09.251 Introduction to Ethics - WI
- PHIL09.322 Business Ethics
- PHIL09.341 Biomedical Ethics
- PHIL09.346 Feminist Ethics
- PHIL09.323 Environmental Ethics

Capstone requirements 3 s.h.

- PHRE11.490 Senior Seminar in Philosophy and Religion Studies

Portfolio (not for credit) In consultation with his or her advisor, the student prepares a portfolio of best work from his or her work in the department (this would include the student’s senior seminar paper and two other papers of the student’s choice, together with reflections on his or her progress in the major).

Total Departmental Requirements 42 s.h.
Total General Education, Rowan Experience, and electives 78 s.h.
Total Credits in Program: 120 s.h.

MINOR IN PHILOSOPHY
Ellen Miller
Department Chair
Edgar F. Bunce Hall, Suite 315
856.256.4835
millere@rowan.edu

Program Requirements: 21 s.h.

- PHIL09.120 Introduction to Philosophy
- or PHIL09.121 Introduction to Philosophy - WI
- PHIL09.110 Logic of Everyday Reasoning
- or PHIL09.130 Introduction to Symbolic Logic
- PHIL09.211 World Philosophy I
- or PHIL09.213 World Philosophy II

Three (3) philosophy electives 9 s.h.
Senior Seminar in Philosophy and Religion Studies

MINOR IN PHILOSOPHY AND RELIGION STUDIES
Ellen Miller
Department Chair
Edgar F. Bunce Hall, Suite 315
856.256.4835
millere@rowan.edu

Program Requirements: 21 s.h.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL09.120</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>or PHIL09.121</td>
<td>Introduction to Philosophy - WI</td>
</tr>
<tr>
<td>REL10.200</td>
<td>Religions of the World</td>
</tr>
</tbody>
</table>

Four (4) philosophy or Religion Studies electives (two must be 300 level or above) 12 s.h. (These may include interdisciplinary PHRE11 courses.)

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHRE11.490</td>
<td>Senior Seminar in Philosophy and Religion Studies</td>
</tr>
</tbody>
</table>

CONCENTRATION IN PHILOSOPHY AND RELIGION STUDIES
Ellen Miller
Department Chair
Edgar F. Bunce Hall, Suite 315
856.256.4835
millere@rowan.edu

Program Requirements: 18 s.h.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL09.120</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>or PHIL09.121</td>
<td>Introduction to Philosophy - WI</td>
</tr>
<tr>
<td>REL10.200</td>
<td>Religions of the World</td>
</tr>
</tbody>
</table>

Four (4) additional courses in Philosophy and/or Religion Studies 12 s.h. (These may include interdisciplinary PHRE11 courses.)

CONCENTRATION IN BIOETHICS AND THE PHILOSOPHY OF MEDICINE
Ellen Miller
Department Chair
Edgar F. Bunce Hall, Suite 315
856.256.4835
millere@rowan.edu

Program Requirements: 18 s.h.

Required Courses: 12 s.h.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL09.250</td>
<td>Introduction to Ethics</td>
</tr>
<tr>
<td>or PHIL09.251</td>
<td>Introduction to Ethics - WI</td>
</tr>
<tr>
<td>PHIL09.392</td>
<td>Contemporary Moral Problems</td>
</tr>
<tr>
<td>or PHIL09.393</td>
<td>Contemporary Moral Problems - WI</td>
</tr>
<tr>
<td>PHIL09.341</td>
<td>Biomedical Ethics</td>
</tr>
<tr>
<td>PHIL09.375</td>
<td>Philosophy of Medicine – WI</td>
</tr>
</tbody>
</table>

Elective Courses (pick two): 6 s.h.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL09.368</td>
<td>Philosophy of Science</td>
</tr>
<tr>
<td>or PHIL09.369</td>
<td>Philosophy of Science – WI</td>
</tr>
<tr>
<td>PHIL09.322</td>
<td>Business Ethics</td>
</tr>
<tr>
<td>PHIL09.346</td>
<td>Feminist Ethics</td>
</tr>
<tr>
<td>PHRE11.350</td>
<td>Spirituality and Healing</td>
</tr>
</tbody>
</table>

Department of Political Science and Economics

Natalie Reaves
Chair
317 Robinson Hall
856.256.4061
reaves@rowan.edu

POLITICAL SCIENCE PROGRAM
Lawrence P. Markowitz
Coordinator
317 Robinson Hall
856.256.4889
BACHELOR OF ARTS IN POLITICAL SCIENCE
The Political Science faculty offers a major program of 39 credits leading to a Bachelor of Arts degree, and a minor program consisting of 21 credits. These programs are open to all students who envision careers as government managers and administrators, public policy analysts, lawyers, journalists, intelligence officers, diplomatic service officers, teachers, lobbyists, public opinion analysts, legislative aides, campaign professionals, or any other career in government or business which requires a broad liberal arts background. The major program aims to provide both breadth of knowledge of the discipline and in-depth studies in areas of the student’s greatest interest. A grade of C- or better must be earned in all Political Science courses.

General Education
All students must complete the University General Education Requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Required Courses

Political Science
- POSC07.110 American Government
- POSC07.200 Survey of Western Political Theory
- POSC07.230 Comparative Political Systems
- POSC07.320 International Relations
- POSC07.360 Methodology and Statistics in Political Science Research
- POSC07.310 American Constitutional Law
- POSC07.489 Seminar in Political Science

Applied Politics
Majors must complete 6 s.h. in applied politics utilizing one of the following three options:
- EDPA02.490 Public Service Internship
- or EDPA02.320 Public Administration

and one of the following:
- POSC07.220 State & Local Government
- POSC07.415 In-depth Study of the Supreme Court
- POSC07.421 International Organizations
- or EDPA02.490 Public Service Internship

and any 3 s.h. Political Science elective listed below:

Political Science Electives
Distribution of electives: a minimum of 6 s.h. (two courses) in one of the three areas below and 3 s.h. (one course) in each of two other areas.

American Politics/Public Administration
(each course is 3 s.h.)
- POSC07.220 State and Local Government
- POSC07.303 Campaigns, Political Parties and Interest Groups
- POSC07.305 The Legislative Process
- POSC07.306 The Presidency
- POSC07.308 Current Problems in American Politics
- POSC07.311 Women and American Politics
- POSC07.323 Politics of Race, Poverty, and Welfare in the U.S.
- POSC07.324 Black American and American Politics
- POSC07.370 Special Topics in Political Science (according to topic)
- POSC07.380 American Politics on Film
- POSC07.385 Environmental Policy
- POSC07.400 American Political Thought
- POSC07.401 Contemporary Political Thought
- POSC07.491 Independent Study in Political Science (according to topic)
- EDPA02.320 Public Administration
- EDPA02.410 Public Policy

Multicultural/Global Studies and International and Comparative Politics
(each course is 3 s.h.)
- POSC07.321 Contemporary World Problems
MINOR IN POLITICAL SCIENCE

The minor program in political science supplements the curriculum of students majoring outside of political science; it helps students expand their career options into such fields as law, journalism, social studies teaching, business, government and intelligence. The minor requires 21 s.h. of political science courses. Twelve of those semester hours are in basic courses which are required of all who pursue a political science minor, while the other nine are political science electives which students can tailor to their particular career or intellectual interests.

**Required Courses**

- **POSC07.110** American Government
- **POSC07.200** Survey of Western Political Theory
- **POSC07.230** Comparative Political Systems
- **POSC07.320** International Relations

**Political Science Electives**

Any three courses (each is 3 s.h.) from the following list:

- **POSC07.220** State and Local Government
- **POSC07.303** Campaigns, Political Parties and Interest Groups
- **POSC07.305** The Legislative Process
- **POSC07.306** The Presidency
- **POSC07.308** Current Problems in American Politics
- **POSC07.310** American Constitutional Law
- **POSC07.311** Women and American Politics
- **POSC07.312** Freedom of Expression
- **POSC07.321** Contemporary World Problems
- **POSC07.323** Politics of Race, Poverty, and Welfare in the U.S.
- **POSC07.324** Black American and American Politics
- **POSC07.330** Contemporary U.S. Foreign Policy
- **POSC07.340** Civil Rights and Civil Liberties
- **POSC07.341** Russian, East European and Eurasian Politics
- **POSC07.346** Politics and Society of Great Britain
- **POSC07.347** Politics of the Middle East
ECONOMICS PROGRAM
Natalie Reaves
Coordinator
317 Robinson Hall
856.256.4061
reaves@rowan.edu

BACHELOR OF ARTS IN ECONOMICS
In Economics, students acquire skills for analyzing important and stimulating national and global problems. Various possible solutions are developed. Economics deals with many current issues facing our society, such as energy, inflation, unemployment, pollution, urban decay, as well as foreign trade and government budget deficits.

The study of Economics prepares students for graduate studies or careers in the private sector, government services, teaching or research. Graduates with the Bachelor of Arts degree find that employment opportunities are greatest in business and government.

There are two programs of study: (1) B.A. program requiring 36 hours in economics; and (2) a minor requiring 21 hours in economics.

Program Requirements
Students are required to earn a C- or better in all Economics required and elective courses applied towards the major and take (MATH03.125) Calculus T & A or (MATH03.130) Calculus I and earn a C- or better. Students must take at least 30 of the 120 credits required for graduation and 21 of their required 36 credits in the major at Rowan University.

General Education
All students must complete the University General Education Requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Major in Economics 36 s.h.

Required Courses 21 s.h.

ECON04.101 Introduction to Economics: Macroeconomics
ECON04.102 Introduction to Economics: Microeconomics
ECON04.202 Statistics for Economists
ECON04.201 Intermediate Macroeconomics
ECON04.302 Intermediate Microeconomics
ECON04.392 Econometrics
ECON04.492 Seminar in Economics (WI)

Economic Electives 15 s.h.

One Multi-cultural/Global (MG) course is required:

ECON04.200 History of Economic Ideas
ECON04.205 American Economic History
ECON04.210 Environmental Economics
ECON04.215 Current Economic Problems and Policies
ECON04.225 Women in the Economy
ECON04.269 Selected Topics in Economics
ECON04.303 Principles of Economics: A Survey (not for majors)
ECON04.305 Money and Banking
ECON04.307 Economic Development (MG)
College of Humanities and Social Sciences

ECON04.310  Global Economics (MG)
ECON04.315  Public Finance
ECON04.320  Contemporary Economic Systems (MG)
ECON04.345  Labor Economics
ECON04.351  Health Economics
ECON04.360  Urban Economics
ECON04.395  Economics of Personal Financial Planning
ECON04.410  Internship in Economics
ECON04.495  Independent Study in Economics

Free Electives  29 s.h.
Total Credits in Program  120 s.h.

MINOR IN ECONOMICS

Required Courses  6 s.h.
ECON04.101  Introduction to Economics-Macroeconomics
ECON04.102  Introduction to Economics-Macroeconomics

Economics Electives  15 s.h.
The student, in consultation with his/her Economics Advisor, must select the remaining 15 s.h. from the courses offered by the Economics curriculum. No less than 6 s.h. must be at the junior/senior level. Principles of Economics: Global Perspective (ECON04.303) is not counted as a junior/senior level elective course. Both Intermediate Macroeconomics (ECON04.301) and Intermediate Microeconomics (ECON04.302) are strongly recommended.

Total Credits in Program  21 s.h.

Department of Sociology and Anthropology

Mary J. Gallant
Chair
Robinson Hall
856.256.4887
gallant@rowan.edu

Yuhui Li
Coordinator of Advising
Robinson Hall
856.256.4500 Ext. 3786
li@rowan.edu

Sociology

The major in Sociology consists of 120 semester hours. Upon completing all requirements in their program, students majoring in sociology receive a Bachelor of Arts degree in Sociology. The major program aims to develop students' competence in understanding and analyzing the effects of social factors across all levels of society. The BA in Sociology overall affords its majors a strong Liberal Arts undergraduate degree as well as a rich foundation for most graduate degree programs.

Students in the sociology major now have the option of taking the General Program or the Applied Specialization for the degree. The General Program (2208) allows students flexibility in choosing which lower and upper level electives will be part of their program. It consists of a total of 33 semester hours. The Specialization in Applied Sociology (2209) consists of 39 semester hours, with students taking fewer Free Electives than in the General Program. The specialization focuses specifically on the analysis and treatment of social problems, the assessment of community based needs and practices, and the development and evaluation of strategies for positive social change. It provides a sound foundation for pursuing careers in human and community service industries.

CORE courses for both the general program and the specialization are the same. The CORE consists of Introduction to Sociology, Classical Social Theory, Social Statistics, Sociological Research Methods and Senior Seminar. The specialization in addition requires that students take the Field Experience (6sh) course which acts as their internship experience, Sociological Practice (3sh), Social Problems (3sh) and four other 3-credit upper or lower level elective courses.

Admission to the sociology program is open to all those students who are in good academic standing. To graduate with a degree in sociology, students must have a minimum GPA of 2.0 and no grades lower than a C- in all required courses. This rule applies to Sociology and non-Sociology courses. Students must also have an overall GPA of 2.0. Of the 33 semester hours in the general program and 39 semester hours in the specialization, students must complete at least 15 hours at Rowan University and take at least 18 hours in 300 or 400 level sociology courses. Sociology majors must also have a total of 30 hours of upper level courses among the 120 semester hours of course work required for graduation. This minimum of 30 upper level hours--of which 18 upper level hours must be in sociology--can be divided between sociology and other areas of study. Credit by examination-CLEP, may be substituted for Introduction to Sociology (08 120).

BACHELOR OF ARTS IN SOCIOLOGY, GENERAL DEGREE PROGRAM
General Education
All students must complete the University General Education requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT02.100</td>
<td>Elementary Statistics</td>
</tr>
<tr>
<td>PSY01.107</td>
<td>Essentials of Psychology</td>
</tr>
<tr>
<td>ANTH02.202</td>
<td>Cultural Anthropology</td>
</tr>
</tbody>
</table>

History, Humanities and Languages Choice
Choose from among the general education Courses in each field. (6 s.h.)

Geography
Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>GEOG16.110</td>
<td>Cultural Geography</td>
</tr>
<tr>
<td>or GEOG16.140</td>
<td>World Regional Geography</td>
</tr>
</tbody>
</table>

Economics or Political Science
Choose one of the following:

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ECON04.101</td>
<td>Intro to Macroeconomics</td>
</tr>
<tr>
<td>ECON04.102</td>
<td>Intro to Microeconomics</td>
</tr>
<tr>
<td>POSC07.100</td>
<td>Intro to Government and Politics</td>
</tr>
<tr>
<td>POSC07.110</td>
<td>American Government</td>
</tr>
<tr>
<td>POSC07.230</td>
<td>Comparative Political Systems</td>
</tr>
<tr>
<td>POSC07.321</td>
<td>Contemporary World Problems</td>
</tr>
</tbody>
</table>

History Choice from Approved General Education Courses (3 s.h.)

Religion or Philosophy Choice from Approved General Education Courses (3 s.h.)

*(The general education courses are the same for both the general program and the specialization. See above.)*

Sociology Major Courses

Required Courses for the B.A. in Sociology, General Program

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCo8.120</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOCo8.331</td>
<td>Classical Sociological Theory (upper level)</td>
</tr>
<tr>
<td>SOCo8.375</td>
<td>Sociological Research Methods (upper level)</td>
</tr>
<tr>
<td>SOCo8.376</td>
<td>Social Statistics (upper level)</td>
</tr>
<tr>
<td>SOCo8.425</td>
<td>Senior Seminar (upper level)</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(any level)</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(any level)</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(any level)</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(300-400 level)</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(300-400 level)</td>
</tr>
</tbody>
</table>

Total Credits: 120 s.h.

Required Courses for the B.A. in Sociology, Applied Specialization*

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOCo8.120</td>
<td>Introduction to Sociology</td>
</tr>
<tr>
<td>SOCo8.221</td>
<td>Social Problems</td>
</tr>
<tr>
<td>SOCo8.331</td>
<td>Classical Sociological Theory</td>
</tr>
<tr>
<td>SOCo8.375</td>
<td>Sociological Research Methods</td>
</tr>
<tr>
<td>SOCo8.376</td>
<td>Social Statistics</td>
</tr>
<tr>
<td>SOCo8.425</td>
<td>Senior Seminar</td>
</tr>
<tr>
<td>SOCo8.494</td>
<td>Field Experience in Sociology</td>
</tr>
<tr>
<td>SOCo8.339</td>
<td>Sociological Practice</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(any level)</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(Practice Bank)</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(Applied Bank)</td>
</tr>
<tr>
<td>Sociology Choice</td>
<td>(Specialization Bank)</td>
</tr>
</tbody>
</table>

Total Credits: 120 s.h.

Minor in Sociology

The Minor in Sociology consists of 21 semester hours. A minimum of 12 of the semester hours must be taken in 300 or 400 level courses. Introduction to Sociology (SOCo8.120) as well as Classical Sociological Theory (SOCo8.331) are required courses. A minimum of 12 semester hours must be taken at Rowan University.

ANTHROPOLOGY
Maria Rosado
Advisor
Robinson Hall
Minor in Anthropology

The Minor in Anthropology consists of six 3-credit courses. The first three courses constitute a common core taken by all minors. These are:

- ANTH202: Cultural Anthropology
- ANTH221: Human Variation
- ANTH203: Archaeology

Minors select the remaining three courses in consultation with their minor advisor (whom the student may choose at any point prior to taking the final three courses). Each student will be encouraged to concentrate in a particular subfield of anthropology (cultural, physical or archaeology). Those who have an interest in which no class is offered may elect an independent study or research course as a final course choice. Interested students may elect to take more courses than the minimum required by the minor. If graduate studies in anthropology are anticipated, the student is encouraged to take a minimum of 8 courses. Student is encouraged to take a minimum of 8 courses.

Interdisciplinary Studies Bachelor of Arts Programs

AFRICANA STUDIES
James Coaxum
Coordinator
215G Robinson Hall
856.256.4793
c coaxum@rowan.edu

Rowan University's Africana Studies Program is a significant component of the Institution's commitment to multidisciplinary education and the inclusion of the study of the experiences of diverse peoples within its academic programs and services. The program offers a Bachelors Degree in Africana Studies and an undergraduate concentration in African American Studies, through cooperative arrangements with about 12 academic departments of the University.

BACHELOR OF ARTS IN AFRICANA STUDIES

Africana Studies is an interdisciplinary major designed to engage undergraduate students in a critical examination of past and contemporary challenges, experiences and contributions of people of African descent and their relations with other groups throughout history. Hence the program is both national and international in scope. The program emphasizes two major goals: (1) discovering, mastering and creating knowledge and (2) using those understandings and skills in service to institutions and communities.

In addition to the foundational or core requirements, students in the major will select a specialization in one of the following areas: African American Studies, African Studies, Afro-Latin American and Caribbean Studies, or Africana Comparative Studies. To maximize their career path options, students will be able to take the Africana Studies Major with a minor in one of the academic disciplines or as a double major.

Graduates with a Bachelors Degree in Africana Studies will have the intellectual, technical, and social competencies to be competitive as applicants for employment and graduate or professional study in the US or abroad in a broad range of fields including: Education, law and justice, business, international affairs, federal and state public services, politics, social work, public administration, library and museum services, health sciences and public health, theatre, psychology and the social sciences, economic development, non-profit management, writing, journalism, ethnic studies, and the arts.

The program promotes regular academic advising and consultation with the program coordinator or other faculty and staff to enable students to follow a clear sequence of courses both in general education and the major. This is especially essential for students pursuing a double major, who will need assistance in fulfilling the requirements of both majors by utilizing the flexibility provided in the current model of general education.

General Education

All students must complete the University General Education Requirements as described on page 31

Rowan Experience

All students must complete the University Rowan Experience as described on page 33

Program Requirements

Foundational or Core Requirements: 18 s.h.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>AFST11.104</td>
<td>Introduction to Africana Studies</td>
</tr>
<tr>
<td>HIST05.394</td>
<td>Sub-Saharan Africa to 1800</td>
</tr>
<tr>
<td>AFST11.304</td>
<td>Africana Social/Political Thought</td>
</tr>
<tr>
<td>AFST11.305</td>
<td>Research Methods in Africana Studies</td>
</tr>
<tr>
<td>AFST11.310</td>
<td>Service Learning Seminar in Africana Studies</td>
</tr>
<tr>
<td>AFST11.450</td>
<td>Senior Seminar in Africana Studies</td>
</tr>
</tbody>
</table>
Tracks for Specialization 12 s.h.
Each Africana Studies Major will develop a specialization by selecting a minimum of 12 credit hours of courses in one of the four thematic areas below.

### African Studies
- **ZULU16.101** Elementary Zulu I
- **ZULU16.102** Elementary Zulu II
- **ANTH02.311** Peoples & Cultures of Africa
- **ARAB12.101** Elementary Arabic I
- **ARAB12.102** Elementary Arabic II
- **GEOG16.345** Geography of Africa
- **HIST05.397** Sub-Saharan Africa Since 1800
- **HIST05.437** 20th Century African Nationalism
- **HIST05.429** Proseminar in History: Women in African History
- **POSC07.441** Contemporary Problems of Modern Africa
- **SWHL17.101** Elementary Swahili I
- **SWHL17.102** Elementary Swahili II
- **Special Topics on Africa**

### African American Studies
- **ECON04.225** Women in the Economy
- **ECON04.360** Urban Economics
- **ENGL02.216** African American Literature Through Harlem Renaissance
- **ENGL02.316** African American Literature Since Harlem Renaissance
- **HIST05.322** Civil War & Reconstruction
- **HIST05.370** African American History to 1865
- **HIST05.377** African American History Since 1865
- **HIST05.422** Women in American History
- **LAWJ05.205** Minorities, Crime, & Justice
- **LAWJ05.346** Women, Crime & Criminal Justice
- **MUSG06.220** The Music of African Americans
- **MUSG06.115** Growth & Development of Jazz
- **POSC07.324** Black Americans & American Politics
- **POSC07.311** Women in American Politics
- **POSC07.340** Civil Rights and Civil Liberties
- **POSC07.323** Politics of Race, Poverty & Welfare
- **PSY01.235** African American Psychology
- **RTF03.280** African American Film History
- **RTF03.272** Images/Women in Film
- **THD08.311** African Influences in American Dance
- **Special Topics in African American Studies**

### Africana Comparative Studies
- **ECON04.310** Global Economics
- **ENGL02.116** Readings in Non-Western Literature
- **ENGL02.200** Women in Literature
- **GEOG16.140** World Regional Geography
- **HIST05.120** World History Since 1500
- **HIST05.417** Women in Islam
- **HIST05.413** Comparative Race Relations: S. Afr/Brazil/US
- **HIST05.425** History of Feminisms
- **HIST05.441** Imperialism & Colonialism
- **INTR01.130** Women in Perspective
- **INTR01.200** Issues in Women's Health
- **LAWJ05.330** Problems in World Justice
- **LAWJ05.415** Law & Human Rights
- **MKT09.379** International Marketing
- **MUSG06.448** Music in World Cultures
- **POSC07.230** Comparative Political Systems
- **POSC07.321** Contemporary World Problems
- **PSY01.105** Psychology of Ethnic Identity & Community
- **PSY01.310** Psychology of Racism & Ethnocentrism
- **PSY01.200** Psychology of Women & Cultural Experience
- **RTF03.272** Images of Women in Film
- **SOC08.120** Sociology of Minority Groups
Program Electives

Students majoring in Africana Studies must elect a minimum of nine credit hours from courses offered under any of the areas above. At least two (2) of these electives must be at the 300 or 400 level.

Other Requirements

In addition to the hours needed to fulfill the Rowan University General Education Requirements, Africana Studies majors must take the following additional credits from the courses listed under the Social and Behavioral Sciences Banks and the History, Humanities and Language Banks.

Courses

Social and Behavioral Sciences

Foreign/World Language (Zulu, Swahili, Arabic, French, Spanish, or Portuguese)

Non-Program Electives

Study Abroad

Students will be required to earn between 3 and 15 Credit Hours of a Study Abroad Experience in Africa, the Americas, the Caribbean, or elsewhere in the African Diaspora, during which they can complete course electives in their major to complement their career interests.

Students may apply for and undertake a traditional semester or academic year experience within the program that the University offers for study abroad in a number of countries, including Egypt, Ghana, Kenya, the Republic of South Africa, and South and Central America. Students may also participate for course credit in faculty-led two to four-week summer institutes and two-week intersession or mid-year study abroad programs.

Students who are unable to undertake either the semester, year-long, summer or intersession study abroad alternatives for documented reasons will be able to fulfill the requirement through domestic internships which enables them to approximate some of the important intercultural benefits of international study.

Students who have had travel, work or formal program experience in another country, (for example, within another major) that may be equivalent to the study abroad as outlined above, may apply with appropriate documentation to the Coordinator of Africana Studies for exemption from the requirement.

Grade-Point Average

Students who choose to major and graduate in Africana Studies must have and maintain a cumulative 2.0 Grade-Point Average as a minimum, with no grade lower than a 2.0 in courses in the major.

Free Electives

CONCENTRATION IN AFRICAN AMERICAN STUDIES

The African American Studies Concentration consists of interdisciplinary curricular offerings that engage faculty and students in critical analysis, reflection and transformational thinking about African Americans within the framework of the multicultural diversity and global connectedness of American society.

The African American Studies Program dates back to the late 1960s when the Civil Rights Movement across the nation and the Southern New Jersey region led to the establishment of the King Scholar Program (The Educational Opportunity Fund or EOF Program) in the Fall of 1968. Following the offering of the first Black History course by the History Department in 1969 in response to Black student demands, a slow but steady growth in African American and African curricular offerings over the course of the next two decades culminated in the formal establishment of the African American Studies Concentration in 1989.
See the requirements for this concentration listed under the Interdisciplinary Studies Concentrations section of this catalog.

**Bachelor of Arts in American Studies**

**Emily Blanck**

Coordinator
Robinson Hall
856.256.4500 ext. 3994
blancke@rowan.edu

The American Studies major is a guided interdisciplinary program that combines structure with choice. The Introduction to American Studies AMST13.201 will help you to synthesize the varying approaches and methods you will master during your college career. You will study in most of the departments in the College of Liberal Arts & Sciences addressing issues in American society, culture, history, and geography.

The program will introduce you to the diversity of peoples who comprise America. Courses such as Contemporary Sociological Theory, American Philosophy, Religion in America, and The American Novel will build upon the foundation in American literature and history that the major provides. The highlight of every student’s career is the Senior Seminar in American Studies AMST13.402, an intense, discussion-led, capstone experience.

Offering banks of approved courses, the major offers you the flexibility to tailor your program to your personal interests and the time to further explore those courses that interest you or that best apply to your specific career goals.

Except for free electives, no course can be taken as Pass/Fail and all courses must be completed with a C- or better. Students who are not transfers must take a Rowan Seminar.

The American Studies program is housed in the Department of Philosophy & Religion.

**General Education**

All students must complete the University General Education Requirements as described on page 31

**Rowan Experience**

All students must complete the Rowan Experience requirements as described on page 33

**Required Courses**

- One free elective in Mathematics or Science (this course also satisfies a Math/Science Gen. Ed. Requirement)
- American Government (this course also satisfies an SBS Gen. Ed. Requirement)
- Geography of the U.S. and Canada (this course also satisfies an SBS Gen. Ed. Requirement)
- Introduction to Sociology OR Social Problems (this course also satisfies an SBS Gen. Ed. Requirement)
- United States History to 1865 (this course also satisfies a Humanities Gen. Ed. Requirement)
- United States History Since 1865 (this course also satisfies a Humanities Gen. Ed. Requirement)
- Readings in U.S. Literature (this course also satisfies a History/Humanities/Language Gen. Ed. Requirement and the Rowan Experience broad-based literature requirement)
- History of American Art (this course also satisfies a Rowan Experience in Art Requirement)

**Required courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMST13.201</td>
<td>Introduction to American Studies (Prerequisite: Comp 01.112)</td>
</tr>
<tr>
<td>AMST13.402</td>
<td>Senior Seminar in American Studies (this course also satisfies Rowan’s Writing Intensive requirement)(Prerequisite: Intro to American Studies plus 5 courses in the major)</td>
</tr>
</tbody>
</table>

**Core Choices**

Two (2) courses from among:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST05.339</td>
<td>American Revolution and Early Republic 1775-1820</td>
</tr>
<tr>
<td>HIST05.321</td>
<td>U.S. History 1820-1861</td>
</tr>
<tr>
<td>HIST05.322</td>
<td>Civil War and Reconstruction</td>
</tr>
<tr>
<td>HIST05.324</td>
<td>Twentieth Century U.S. History</td>
</tr>
<tr>
<td>HIST05.328</td>
<td>Colonial North America</td>
</tr>
<tr>
<td>HIST05.329</td>
<td>Gilded Age and Progressive Era 1877-1914</td>
</tr>
<tr>
<td>HIST05.338</td>
<td>America from War to War</td>
</tr>
<tr>
<td>HIST05.373</td>
<td>Civil Rights/Black Power Movements</td>
</tr>
<tr>
<td>HIST05.375</td>
<td>America Since 1945: The Modern Era</td>
</tr>
<tr>
<td>HIST05.407</td>
<td>History of World War II</td>
</tr>
<tr>
<td>HIST05.412</td>
<td>Intellectual History of the U.S.</td>
</tr>
<tr>
<td>or HIST05.472</td>
<td>Cultural History of the U.S.</td>
</tr>
<tr>
<td>HIST05.413</td>
<td>Urban History of the U.S.</td>
</tr>
<tr>
<td>HIST05.436</td>
<td>U.S. Home Front 1941-1945</td>
</tr>
</tbody>
</table>
### College of Humanities and Social Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>HIST05.438</td>
<td>History of the Vietnam War</td>
</tr>
<tr>
<td>HIST05.470</td>
<td>Topics in American History</td>
</tr>
<tr>
<td>HIST05.471</td>
<td>History of the American West</td>
</tr>
<tr>
<td>HIST05.473</td>
<td>American Military History</td>
</tr>
<tr>
<td>HIST05.474</td>
<td>U.S. Labor History</td>
</tr>
<tr>
<td>HIST05.475</td>
<td>History of New Jersey</td>
</tr>
<tr>
<td>HIST05.495</td>
<td>Internship in History</td>
</tr>
<tr>
<td>PHIL09.325</td>
<td>American Philosophy</td>
</tr>
<tr>
<td>POSC07.400</td>
<td>American Political Thought</td>
</tr>
</tbody>
</table>

One (1) course from among:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>LAWJ05.312</td>
<td>Trial Procedure and Supreme Court</td>
</tr>
<tr>
<td>LAWJ05.322</td>
<td>Drugs &amp; Crime in America</td>
</tr>
<tr>
<td>PHIL09.392</td>
<td>Contemporary Moral Problems</td>
</tr>
<tr>
<td>PHIL09.393</td>
<td>Contemporary Moral Problems WI (this course also satisfies Rowan’s Writing Intensive requirement)</td>
</tr>
<tr>
<td>PHIL09.240</td>
<td>Philosophy &amp; Society</td>
</tr>
<tr>
<td>PHIL09.241</td>
<td>Philosophy &amp; Society WI (this course also satisfies Rowan’s Writing Intensive requirement)</td>
</tr>
<tr>
<td>POSC07.310</td>
<td>American Constitutional Law</td>
</tr>
<tr>
<td>POSC07.340</td>
<td>Civil Rights &amp; Civil Liberties</td>
</tr>
<tr>
<td>SOC08.331</td>
<td>Classical Social Theory</td>
</tr>
<tr>
<td>SOC08.332</td>
<td>Contemporary Sociological Theory</td>
</tr>
</tbody>
</table>

Two (2) courses from among:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL02.313</td>
<td>U.S. Literature to Realism</td>
</tr>
<tr>
<td>ENGL02.315</td>
<td>U.S. Literature Since Realism</td>
</tr>
<tr>
<td>ENGL02.322</td>
<td>Literature of the American Renaissance</td>
</tr>
<tr>
<td>ENGL02.327</td>
<td>Modern American Poetry</td>
</tr>
<tr>
<td>ENGL02.228</td>
<td>The Modern Short Story</td>
</tr>
<tr>
<td>ENGL02.301</td>
<td>American English Grammar</td>
</tr>
<tr>
<td>ENGL02.423</td>
<td>The American Novel</td>
</tr>
<tr>
<td>ENGL02.424</td>
<td>American Dramatists</td>
</tr>
<tr>
<td>ENGL02.425</td>
<td>Contemporary Literature</td>
</tr>
<tr>
<td>RTF03.372</td>
<td>American Film Directors</td>
</tr>
<tr>
<td>THD07.360</td>
<td>Musical Theater</td>
</tr>
</tbody>
</table>

**Gender, Diversity & Class**

One (1) course from among:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGL02.200</td>
<td>Women in Literature</td>
</tr>
<tr>
<td>HIST05.422</td>
<td>Women in American History</td>
</tr>
<tr>
<td>LAWJ05.346</td>
<td>Women, Crime, &amp; Criminal Justice</td>
</tr>
<tr>
<td>PHIL09.329</td>
<td>Philosophy &amp; Gender WI, M/G (this course also satisfies Rowan’s Writing Intensive and Multicultural/Global requirements)</td>
</tr>
<tr>
<td>POSC07.311</td>
<td>Women and American Politics M/G (this course also satisfies Rowan’s Multicultural/Global requirement)</td>
</tr>
<tr>
<td>PSY01.200</td>
<td>Psychology of Women and Cultural Experience</td>
</tr>
<tr>
<td>RTF03.372</td>
<td>Images of Women in Film</td>
</tr>
<tr>
<td>SOC08.370</td>
<td>Sociology of Women in Society</td>
</tr>
<tr>
<td>SOC08.493</td>
<td>Gender Roles Seminar</td>
</tr>
</tbody>
</table>

One (1) course from among:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTH02.350</td>
<td>Indians of North America (this course also satisfies Rowan’s Multicultural / Global requirement)</td>
</tr>
<tr>
<td>ANTH02.310</td>
<td>Afro-American Lit. to the Harlem Renaissance (this course also satisfies Rowan’s Multicultural / Global requirement)</td>
</tr>
<tr>
<td>ENGL02.216</td>
<td>U.S. Literature of Latino &amp; Hispanic Peoples</td>
</tr>
<tr>
<td>ENGL02.316</td>
<td>Afro-American Lit. Since the Harlem Renaissance (this course also satisfies Rowan’s Multicultural / Global requirement)</td>
</tr>
<tr>
<td>ENGL02.217</td>
<td>Politics of Race, Poverty &amp; Welfare in the U.S.</td>
</tr>
<tr>
<td>REL10.210</td>
<td>Religion in America (this course also satisfies Rowan’s Multicultural / Global requirement)</td>
</tr>
<tr>
<td>SOC08.230</td>
<td>Sociology of Minority Groups (this course also satisfies Rowan’s Multicultural / Global requirement)</td>
</tr>
<tr>
<td>HIST05.376</td>
<td>African-American History to 1865</td>
</tr>
<tr>
<td>HIST05.377</td>
<td>African-American History since 1865</td>
</tr>
</tbody>
</table>

One (1) course from among:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
</table>
United States and International Relations
Two (2) courses from among:
- ECON04.307 Economic Development (this course also satisfies Rowan's Multicultural / Global requirement)
- ECON04.310 Global Economics
- ECON04.320 Contemporary Economic Systems (this course also satisfies Rowan’s Multicultural/Global requirement)
- GEOG16.303 Political Geography (this course also satisfies Rowan’s Multicultural / Global requirement)
- HIST05.414 U.S. Diplomatic History I
- HIST05.415 U.S. Diplomatic History II
- HIST05.441 Imperialism/Colonialism
- POSC07.230 Comparative Political Systems
- POSC07.320 International Relations
- POSC07.321 Contemporary World Problems (this course also satisfies Rowan’s Multicultural / Global requirement)
- POSC07.330 Contemporary U.S. Foreign Policy
- POSC07.420 International Organizations
- POSC07.421 International Law
- SOC08.327 Comparative Education in Sociological Perspective

International Center
The International Center supports all initiatives through its programs and activities and also provides leadership for the community, cultural enrichment, and international education.

Bachelor of Arts in Liberal Studies: Humanities/Social Science
Larry Butler
Coordinator
Bunce Hall
856.256.5842
butleri@rowan.edu

The Liberal Studies: Humanities/Social Science major is a quality liberal arts program that offers students the opportunity to pursue multiple areas of study in the humanities and social sciences. The ability to combine diverse areas of interest is highly desired by traditional as well as non-traditional students to enrich their lives and prepare for productive rewarding careers. This structured yet versatile major provides an excellent interdisciplinary education for increased marketability upon graduation.

Program Requirements
Major courses will be completed in a minimum of two program sequences. Students must choose one subject from approved Program A Sequences and one from approved Program B Sequences or two may be chosen from Program A Sequences. A minimum number of Free Electives is also required and dependent upon the combined total credits earned in the Program Sequences. The Free Elective requirement may also be completed as a third Program Sequence. Courses used to fulfill the requirements of Program A Sequences may not be used to fulfill requirements for Program B Sequences. Courses eligible for Program A Sequence requirements but not used to fulfill that requirement may be used to fulfill Program B Sequence requirements. Courses used toward Program A and B Sequence completion are not eligible to complete General Education Requirements.

General Education
All students must complete the University General Education Requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Other Requirements
- Additional History/Humanities/Language courses: 6 s.h.
- Additional Social and Behavioral Science courses: 6 s.h.
Additional Non-Program courses  11 s.h.
The Liberal Studies: Humanities/Social Science major promotes regular academic advising and consultation with the program coordinator for students to follow a clear sequence of courses both in general education and the major Program Sequences for degree completion.

Program Sequence: A Choices

Africana Studies

Required Credits  18 s.h.
(12 credits must be earned at Rowan University)

Introductory Level Courses
AFST11.104  Introduction to Africana Studies  6 s.h.

And choose one course from:
ENGL02.216  African American Lit through the Harlem Renaissance
ENGL02.217  US Lit of Latino and Hispanic Peoples
SOC08.230  Sociology of Minority Groups
INTR01.130  Women in Perspective

Advanced Level Courses
AFST11.304  Africana Social/Political Thought  9 s.h.

Choose one course from:
AFST11.305  Research Methods in Africana Studies
HIST05.306  Historical Methods
LAWJ05.380  Criminal Justice Research
POSC07.360  Methods & Statistics in Political Science Research
SOC08.375  Sociological Research Methods
GEOG16.350  Quantitative Methods in Geography

And choose one course from:
PSY01.310  Psychology of Racism & Ethnocentrism
ENGL02.316  African American Lit since the Harlem Renaissance
PSY01.200  Psychology of Women and Cultural Experience
HIST05.347  Traditional Latin America
HIST05.350  Modern Latin America
HIST05.362  History of Mexico and the Caribbean
HIST05.376  African American History to 1865
HIST05.377  African American History since 1865
HIST05.394  Sub-Saharan Africa to 1800
HIST05.397  Sub-Saharan Africa since 1800

Senior Level Capstone
AFST11.450  Africana Studies Senior Seminar WI  3 s.h.

American Studies

Required Credits  21 s.h.
(9 credits must be earned at Rowan University)

Introductory Level Courses
AMST13.201  Introduction to American Studies  3 s.h.

Advanced Level Courses
Choose one course from:
HIST05.339  American Revolution & Early Republic 1775-1820
HIST05.321  US History 1820-1861
HIST05.322  Civil War & Reconstruction
HIST05.324  Twentieth Century US
HIST05.328  Colonial North America 1500-1775
HIST05.329  Gilded Age & Progressive Era 1877-1914
HIST05.338  America from War to War
HIST05.371  US Legal & Constitutional History to 1870
HIST05.372  US Legal & Constitutional History since 1870
HIST05.373  Civil Rights/Black Power Movement
HIST05.375  America since 1945: The Modern Era
HIST05.407  History of World War II
HIST05.412  Intellectual History of US
HIST05.472  Cultural History of US
HIST05.334  Urban History of US
HIST05.436  US Home front 1941-1945
HIST05.438  History of the Vietnam War
HIST05.470  Issues in American History
College of Humanities and Social Sciences

- HIST05.471 History of the American West
- HIST05.473 American Military History 1775-present
- HIST05.474 US Labor History
- HIST05.475 History of New Jersey
- HIST05.495 Internship in History
- PHIL09.321 American Philosophy
- POSC07.400 American Political Thought
- ARHS07.310 History of American Art

Choose one course from:

- GEOG16.302 Urban Geography
- GEOG16.241 Geography of New Jersey
- LAWJ05.312 Criminal Procedure II
- LAWJ05.322 Illegal Drugs & Crime in America
- PHIL09.241 Philosophy & Society
- PHIL09.392 Contemporary Moral Problems
- PHIL09.393 Contemporary Moral Problems-WI
- POSC07.308 Current Problems in American Politics
- POSC07.310 American Constitutional Law
- POSC07.340 Civil Rights & Civil Liberties
- SOC08.320 Urban Sociology
- SOC08.326 The Socialization of the Child through Adolescence
- SOC08.330 Social Stratification
- SOC08.331 Classical Social Theory
- SOC08.332 Contemporary Sociological Theory
- SOC08.336 Sociology of Education
- SOC08.431 Social Psychology of City Life

Choose one course from:

- ENGL02.228 The Modern Short Story
- ENGL02.313 US Literature to Realism
- ENGL02.315 US Literature since Realism
- ENGL02.322 Literature of the American Renaissance
- ENGL02.327 Modern American Poetry
- ENGL02.423 The American Novel
- ENGL02.424 American Dramatists
- ENGL02.425 Contemporary Literature
- ENGL02.431 American English Grammar
- RTF03.372 American Film Directors
- THD07.360 Musical Theatre

Choose one course from:

- ANTH02.310 Indians of North America
- ANTH02.350 Comparative Cultures
- ENGL02.200 Women in Literature
- ENGL02.216 Afro-American Lit through Harlem Renaissance
- ENGL02.217 US Literature of Latino/a & Hispanic Peoples
- ENGL02.316 Afro-American Lit since Harlem Renaissance
- HIST05.376 Afro-American History to 1865
- HIST05.377 Afro-American History since 1865
- HIST05.422 Women in American History
- LAWJ05.346 Women, Crime & Criminal Justice
- POSC07.328 Philosophy & Gender
- PHIL09.329 Politics of Race, Poverty & Welfare in the US
- POSC07.311 Women & American Politics
- POSC07.323 Psychology of Women & Cultural Experience
- REL10.210 Religion in America
- RTF03.272 Images of Women in Film
- SOC08.320 Sociology of Minority Groups
- SOC08.370 Sociology of Women in Society
- SOC08.493 Seminar on Gender Roles

Choose one course from:

- ECON04.307 Economic Development
- ECON04.310 Global Economic
- ECON04.320 Contemporary Economic Systems
- GEOG16.303 Political Geography
### College of Humanities and Social Sciences

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<tr>
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<tbody>
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<tr>
<td>HIST05.415</td>
<td>Diplomatic History of the US since 1900</td>
</tr>
<tr>
<td>HIST05.441</td>
<td>Imperialism &amp; Colonialism</td>
</tr>
<tr>
<td>POSC07.230</td>
<td>Comparative Political Systems</td>
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<td>POSC07.321</td>
<td>Contemporary World Problems</td>
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<td>International Relations</td>
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<td>POSC07.330</td>
<td>Contemporary US Foreign Policy</td>
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<td>POSC07.420</td>
<td>International Law</td>
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<tr>
<td>POSC07.421</td>
<td>International Organizations</td>
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<td>SOC08.327</td>
<td>Comparative Education in Sociological Perspective</td>
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#### Senior Level Capstone

<table>
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<tr>
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<th>Course Title</th>
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<tr>
<td>AMST13.402</td>
<td>Senior Seminar in American Studies</td>
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#### Applied Spanish

**Required credits** 18 s.h.  
(12 credits must be earned at Rowan University)

**Introductory Level Courses** 3 s.h.  
SPAN05.212 Spanish Reading and Composition

**Advanced Level Courses** 12 s.h.  
Choose four courses from:

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<th>Course Title</th>
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<tr>
<td>SPAN05.312</td>
<td>Spanish for Business</td>
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<tr>
<td>SPAN05.313</td>
<td>Spanish for Medical Personnel</td>
</tr>
<tr>
<td>SPAN05.320</td>
<td>Spanish Civilization and Culture</td>
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<tr>
<td>SPAN05.324</td>
<td>Spanish American Civilization and Culture</td>
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<td>SPAN05.340</td>
<td>Intro to Spanish Translation</td>
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#### Senior Level Capstone

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<tbody>
<tr>
<td>SPAN05.409</td>
<td>Advanced Spanish Grammar and Composition</td>
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#### English

**Required credits** 21 s.h.  
(15 credits must be earned at Rowan University)

**Introductory Level Courses** 3 s.h.  
ENGL02.101 Literary Studies for English Majors

**Advanced Level Courses** 15 s.h.  
Choose from:

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<th>Course Title</th>
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<tbody>
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<td>ENGL02.313</td>
<td>US Literature to Realism</td>
</tr>
<tr>
<td>or ENGL02.315</td>
<td>US Literature since Realism</td>
</tr>
<tr>
<td>ENGL02.309</td>
<td>British Literature to Romance</td>
</tr>
<tr>
<td>or ENGL02.311</td>
<td>British Literature since Romanticism</td>
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And choose one from:

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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>ENGL02.231</td>
<td>World Mythology</td>
</tr>
<tr>
<td>ENGL02.228</td>
<td>Modern Short Story</td>
</tr>
<tr>
<td>ENGL02.205</td>
<td>Adolescent Literature</td>
</tr>
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</table>

And choose one from:

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL02.216</td>
<td>African American Literature through Harlem Renaissance</td>
</tr>
<tr>
<td>ENGL02.200</td>
<td>Women in Literature</td>
</tr>
<tr>
<td>ENGL02.217</td>
<td>US Lit Hispanic/Latino Peoples</td>
</tr>
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</table>

And choose one from:

<table>
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<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL05.301</td>
<td>American English Grammar</td>
</tr>
<tr>
<td>ENGL02.316</td>
<td>African American Literature since Harlem Renaissance</td>
</tr>
<tr>
<td>ENGL02.423</td>
<td>American Novel</td>
</tr>
<tr>
<td>ENGL02.424</td>
<td>American Drama</td>
</tr>
<tr>
<td>ENGL02.317</td>
<td>Children’s Literature</td>
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<td>ENGL02.345</td>
<td>Shakespeare I</td>
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#### Senior Level Capstone

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<tbody>
<tr>
<td>ENGL02.393</td>
<td>Seminar I WI</td>
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#### Geography

**Required credits** 21-22 s.h.  
(15-16 credits must be earned at Rowan University)

**Introductory Level Courses** 9-10 s.h.  
GEOG16.160 Intro to Mapping and Geographical Information Systems

And choose two from:

<table>
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<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>GEOG16.160</td>
<td>Intro to Mapping and Geographical Information Systems</td>
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</table>

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GEOG16.100  Earth, People, and the Environment
GEOG16.110  Cultural Geography
GEOG16.130  Earth Sciences Lab I
GEOG16.140  World Regional Geography

Advanced Level Courses
Choose three courses from:
GEOG16.301  Economic Geography
GEOG16.302  Urban Geography
GEOG16.303  Political Geography
GEOG16.304  Population Geography
GEOG16.318  Climatology
GEOG16.332  Geomorphology
GEOG16.334  The Geoscience of Natural Disasters
PLAN31.280  Intro to Planning and Environmental Design
GEOG16.240  Geography of US and Canada
GEOG16.241  Geography of New Jersey
GEOG16.342  Geography of Europe
GEOG16.343  Geography of Asia
GEOG16.344  Geography of Latin America
GEOG16.345  Geography of Africa
GEOG16.346  Geography of Soviet Union
GEOG16.347  Geography of Middle East

Senior Level Capstone
GEOG16.490  Senior Seminar WI

History
Required credits 18 s.h.
(12 credits must be earned at Rowan University)

Introductory Level Courses 6 s.h.
Choose two courses from:
HIST05.150  US History to 1865
HIST05.151  US History since 1865
HIST05.100  Western Civilization to 1660
HIST05.101  Western Civilization since 1660
HIST05.120  World History after 1500

Advanced Level Courses 9 s.h.
HIST05.306  Historical Methods WI
Choose one 300/400 level Global History Elective
Choose one 300/400 level History Elective

Senior Level Capstone 3 s.h.
HIST05.492  Seminar in History WI

Law & Justice Studies
Required credits 21 s.h.
(12 credits must be earned at Rowan University)

Introductory Level Courses 3-9 s.h.
LAWJ05.175  Survey of Criminal Justice
And choose up to two (2) courses from:
LAWJ05.201  Intro to Courts
LAWJ05.255  Criminal Law
LAWJ05.202  American Police
LAWJ05.200  Introduction to Corrections
LAWJ05.120  Introduction to Security
LAWJ05.285  Criminal Investigation
LAWJ05.290  Forensic Law
LAWJ05.276  Parole/Probation & Corrections
LAWJ05.274  Criminal Justice and Community Relations

Advanced Level Courses 9-15 s.h.
Choose three to five courses from:
LAWJ05.369  Theories of Crime & Criminality
LAWJ05.380  Criminal Justice Research
LAWJ05.401  Law & Human Rights
LAWJ05.335  Criminal Procedure I
LAWJ05.312  Criminal Procedure II
LAWJ05.361  Introduction to Juvenile Justice
### College of Humanities and Social Sciences

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>LAWJ05.320</td>
<td>Civil Aspects of Law Enforcement</td>
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<tr>
<td>LAWJ05.310</td>
<td>Criminal Jurisprudence</td>
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<td>LAWJ05.305</td>
<td>Law and Evidence</td>
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<td>LAWJ05.367</td>
<td>Theories of Justice</td>
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<tr>
<td>LAWJ05.205</td>
<td>Minorities and Criminal Justice</td>
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<tr>
<td>LAWJ05.346</td>
<td>Women and Criminal Justice</td>
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<tr>
<td>LAWJ05.315</td>
<td>Criminal Justice and Social Conflict</td>
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<td>LAWJ05.330</td>
<td>Problems in World Justice</td>
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<tr>
<td>LAWJ05.337</td>
<td>Treatment of the Offender</td>
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<tr>
<td>LAWJ05.342</td>
<td>Counseling and Guidance of the Offender</td>
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<tr>
<td>LAWJ05.395</td>
<td>Incarceration Experience</td>
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</tbody>
</table>

#### Senior Level Capstone
Choose one course from:
- LAWJ05.479 Seminar in Police Science WI
- LAWJ05.469 Seminar in Law WI
- LAWJ05.465 Seminar in Social Justice WI
- LAWJ05.461 Seminar in Corrections WI

### Philosophy

#### Required credits 21 s.h.
- (12 credits must be earned at Rowan University)

#### Introductory Level Courses 6-9 s.h.
- PHI09.120 Introduction to Philosophy
- PHI09.121 Introduction to Philosophy WI
- PHI09.110 Logic of Everyday Reasoning
- PHI09.130 Introduction to Symbolic Logic

#### Advanced Level Courses 9-12 s.h.
- PHI09.211 World Philosophy I or
- PHI09.213 World Philosophy II
- And choose two or three philosophy courses at the 200, 300 or 400 level

#### Senior Level Capstone 3 s.h.
- PHRE11.490 Senior Seminar

### Philosophy and Religion

#### Required credits 21 s.h.
- (9 credits must be earned at Rowan University)

#### Introductory Level Courses 6 s.h.
- PHI09.120 Introduction to Philosophy
- PHI09.121 Introduction to Philosophy WI
- REL10.200 Religions of the World

#### Advanced Level Courses 12 s.h.
- Must include a minimum of one Philosophy and one Religion Studies course.
  - Choose one 100 Level or higher PHI or REL course
  - Choose one 200 Level or higher PHI or REL course
  - Choose one 300 Level or higher PHI or REL course
  - Choose one 400 Level or higher PHI or REL course

#### Senior Level Capstone 3 s.h.
- PHRE11.490 Senior Seminar

### Political Science

#### Required credits 21 s.h.
- (12 credits must be earned at Rowan University)

#### Introductory Level Courses 3-6 s.h.
- POSC07.110 American Government (required)
- POSC07.200 Survey of Western Political Theory (optional)

#### Advanced Level Courses 12-15 s.h.
- POSC07.360 Methodology and Statistics in Political Science Research
- And choose three or four Political Science courses at the 200, 300 or 400 level, with the exception of:
  - EDPA02.490 Public Service Internship which is ineligible for this Program Sequence.

#### Senior Level Capstone 3 s.h.
- POSC07.489 Seminar in Political Science WI

### Sociology

#### Required credits 18 s.h.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
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<td>SOC08.120</td>
<td>Introduction to Sociology</td>
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<td>SOC08.221</td>
<td>Social Problems</td>
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<tr>
<td>SOC08.230</td>
<td>Minority Groups</td>
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<tr>
<td>SOC08.223</td>
<td>Sociology of Social Welfare</td>
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<td>SOC08.220</td>
<td>Sociology of the Family</td>
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<tr>
<td>SOC08.269</td>
<td>Self and Society</td>
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<tr>
<td>SOC08.221</td>
<td>Social Problems</td>
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<tr>
<td>SOC08.230</td>
<td>Minority Groups</td>
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<tr>
<td>SOC08.223</td>
<td>Sociology of Social Welfare</td>
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<tr>
<td>SOC08.220</td>
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<td>SOC08.269</td>
<td>Self and Society</td>
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<tr>
<td>SOC08.331</td>
<td>Classical Social Theory</td>
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<td>SOC08.401</td>
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<td>SOC08.323</td>
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<td>SOC08.339</td>
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<td>SOC08.333</td>
<td>Sociology of Work</td>
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<td>SOC08.336</td>
<td>Sociology of Education</td>
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<td>SOC08.370</td>
<td>Sociology of Women</td>
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<td>SOC08.353</td>
<td>Sociology of Complex Organizations</td>
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<td>SOC08.400</td>
<td>Environment, Policy and Society</td>
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<td>SOC08.325</td>
<td>Deviant Behavior and Social Control</td>
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<td>Social Psychology of City Life</td>
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<td>SOC08.320</td>
<td>Urban Sociology</td>
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<tr>
<td>SOC08.427</td>
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**Program Sequence: B Choices**

**Advertising in the Workplace**

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<td>ADV04.330</td>
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<td>ADV04.375</td>
<td>Advertising Copywriting</td>
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<td>ADV04.421</td>
<td>Account Planning</td>
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<tr>
<td>PR06.310</td>
<td>Introduction to Public Relations and Advertising Research</td>
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<td>ADV04.360</td>
<td>Integrated Marketing Communication</td>
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<td>ADV04.432</td>
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**Art History**

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<td>ARHS03.205</td>
<td>Art History Survey III</td>
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<td>ADV04.330</td>
<td>Introduction to Advertising</td>
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<tr>
<td>ADV04.375</td>
<td>Advertising Copywriting</td>
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<tr>
<td>ADV04.421</td>
<td>Account Planning</td>
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**Asian Studies**

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<td>INTR01.136</td>
<td>Gateway to Asia</td>
<td>3-6 s.h.</td>
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<tr>
<td>CHIN07.101</td>
<td>Elementary Chinese I</td>
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</tr>
<tr>
<td>CHIN07.102</td>
<td>Elementary Chinese II</td>
<td></td>
</tr>
<tr>
<td>CHIN07.201</td>
<td>Intermediate Chinese I</td>
<td></td>
</tr>
</tbody>
</table>
CHIN07.211  Intermediate Chinese II
JAPA08.101  Elementary Japanese I
JAPA08.102  Elementary Japanese II
ENGL02.112  Readings in Asian Literature
POSC07.350  Introduction to Asian Political Systems
PHRE11.310  Introduction to Buddhism
REL10.230  Religions of Asia

Advanced Level Courses
Choose three or four courses from:
HIST05.355  Modern China
HIST05.351  Modern Japan
HIST05.408  Chinese Cultural History
PHIL09.330  Asian Thought
PHRE11.330  Introduction to Daoism
GEOG10.343  Geography of Asia
ARHS03.231  Survey of Asian Art

Senior Level Capstone
Choose one course must be Asia-related topic:
PHRE11.340  Selected Topics in Philosophy and Religion Studies
PHRE11.490  Senior Seminar in Philosophy and Religion Studies
HIST05.429  Senior Seminar in History
HIST05.492  Senior Seminar in History

Business
Required credits
21 s.h.
(9 credits must be earned at Rowan University)

Introductory Level Courses
MGT09.242  Legal Environments of Business
ACC03.210  Principles of Accounting I
MKT09.200  Principles of Marketing

Advanced Level Courses
ACC03.211  Principles of Accounting II
MGT06.300  Organizational Behavior
And choose one course from:
MGT.234  Management Information Systems
FIN04.300  Principles of Finance
MKT06.305  Operations Management

Senior Level Capstone
BUS01.303  Business Practicum

Applied Computing
Required credits
21-23 s.h.
(9 credits must be earned at Rowan University)

Introductory Level Courses
CS01.200  Computing Environments
And choose one course from:
CS01.102  Introduction to Programming
CS04.410  Introduction to Programming Using Robots
CS01.104  Introduction to Scientific Programming
CS04.140  Enterprise Computing
CS04.113  Introduction to Object Oriented Programming
CS04.103  Computer Science and Programming

Advanced Level Courses
Choose four courses from:
CS01.105  Web Literacy
CS01.190  Computer Laboratory Techniques
CS01.210  Introduction to Computer Game Modeling
CS01.210  Introduction to Computer Networks and Data Communications
CS04.141  Object-Oriented Programming and Data Abstraction
CS04.141  Enterprise Computing
INTR01.265  Computers and Society
INTR01.266  Computers and Society-WI
CS04.102  Introductory Explorations in Programming and Robotics
MIS02.338  Design of Database Systems
CS01.211  Principals of Information Security
Senior Level Capstone  
CS99.300  Field Experience  

Dance  
**Required Credits**  
**Introductory Level Courses**  
- THD08.135  Elements of Dance  
- THD08.140  Dance Improvisation I  
- THD08.141  Dance Improvisation II  
**Advanced Level Courses**  
- THD08.465  Dynamics of Human Movement  
- THD08.225  Dance Composition I  
And choose 9 s.h. from:  
- THD08.236  Modern Dance I  
- THD08.237  Modern Dance II  
- THD08.277  Modern Dance III  
- THD08.278  Modern Dance IV  
- THD08.246  Fundamentals of Ballet  
- THD08.247  Advanced Ballet (may repeat up to 9 credits)  
- THD08.256  Fundamentals of Jazz  
- THD08.257  Advanced Jazz (may repeat up to 9 credits)  
- THD08.202  Fundamentals of Tap  
- THD08.203  Advanced Tap (may repeat up to 9 credits)  
- THD08.222  Dance-Musical Theatre  
- THD08.146  World Dance Forms  
- THD08.436  Dance History  
- THD08.315  Creative Dance for Children  
- THD08.317  Choreography  

Senior Level Capstone  
THD07.460  Senior Project in Theatre Arts  

Journalism  
**Required credits**  
(15 credits must be earned at Rowan University)  
**Introductory Level Course**  
- JRN02.205  Journalism Principles and Practices  
**Advanced Level Courses**  
- JRN02.310  News Reporting I  
- JRN02.318  Enterprise Journalism  
And choose three courses from:  
- JRN02.320  Broadcast Journalism Radio  
- JRN02.341  Broadcast News Writing  
- JRN02.335  Communication Law  
- JRN02.411  Copyediting  
- JRN02.313  Magazine Article Writing  
- JRN02.319  Media Ethics  
- JRN02.312  Newspaper Feature Writing  
- JRN02.311  News Reporting II  
- JRN02.321  Online Journalism I  

Senior Level Capstone  
JRN02.410  Problems in Contemporary Journalism  

Mathematics  
**Required credits**  
(9 credits must be earned at Rowan University)  
**Introductory Level**  
- MATH01.130  Calculus I  
- MATH01.131  Calculus II  
**Advanced Level**  
(additional pre-requisites required)  
Choose eleven credits from:  
- MATH01.230  Calculus III  
- MATH01.210  Linear Algebra  
- MATH01.231  Ordinary Differential Equations  
- MATH01.340  Modern Algebra I
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.330</td>
<td>Introduction to Real Analysis I</td>
</tr>
<tr>
<td>STAT02.360</td>
<td>Probability &amp; Random Variables</td>
</tr>
<tr>
<td>MATH01.430</td>
<td>Intro to Complex Analysis</td>
</tr>
<tr>
<td>MATH01.205</td>
<td>Technological Tools for Discovering Mathematics</td>
</tr>
<tr>
<td>MATH01.310</td>
<td>College Geometry</td>
</tr>
<tr>
<td>MATH01.331</td>
<td>Introduction to Real Analysis II</td>
</tr>
<tr>
<td>MATH01.341</td>
<td>Modern Algebra II</td>
</tr>
<tr>
<td>MATH01.354</td>
<td>Intro to Topology</td>
</tr>
<tr>
<td>MATH01.332</td>
<td>Numerical Analysis</td>
</tr>
<tr>
<td>STAT02.361</td>
<td>Mathematical Statistics</td>
</tr>
<tr>
<td>STAT02.371</td>
<td>Statistical Design of Experiments I</td>
</tr>
<tr>
<td>MATH03.400</td>
<td>Applications of Mathematics</td>
</tr>
<tr>
<td>MATH01.386</td>
<td>Introduction to Partial Differential Equations</td>
</tr>
<tr>
<td>MATH01.410</td>
<td>History of Mathematics</td>
</tr>
<tr>
<td>MATH03.411</td>
<td>Deterministic Models in Operations Research</td>
</tr>
<tr>
<td>MATH03.412</td>
<td>Stochastic Models in Operations Research</td>
</tr>
</tbody>
</table>

**Senior Level Capstone**  
3 s.h.  
Choose one course from: Rowan University courses offered by the Mathematics Department at the 300 (or higher) level.

### Physical Sciences-Chemistry

**Required credits**  
23-24 s.h.

**Introductory Level Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM06.100</td>
<td>Chemistry I</td>
</tr>
</tbody>
</table>

**Advanced Level**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>CHEM06.101</td>
<td>Chemistry II</td>
</tr>
<tr>
<td>CHEM07.200</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM07.201</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHEM09.250</td>
<td>Quantitative Analysis</td>
</tr>
</tbody>
</table>

**Senior Level Capstone**

Choose Chemistry course that extends student knowledge beyond the advanced level courses listed above and is approved by the Program Sequence Advisor.

### Physical Sciences-General (Chemistry & Physics)

**Required credits**  
24 s.h.

**Introductory Level Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM06.100</td>
<td>Chemistry I</td>
</tr>
</tbody>
</table>

And choose one course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS00.220</td>
<td>Introductory Mechanics</td>
</tr>
<tr>
<td>PHYS00.210</td>
<td>Physics I</td>
</tr>
</tbody>
</table>

**Advanced Level Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM06.101</td>
<td>Chemistry II</td>
</tr>
</tbody>
</table>

And choose one course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS00.222</td>
<td>Introductory Electricity &amp; Magnetism</td>
</tr>
<tr>
<td>PHYS00.211</td>
<td>Physics II</td>
</tr>
</tbody>
</table>

**Senior Level Capstone**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS00.300</td>
<td>Modern Physics</td>
</tr>
<tr>
<td>CHEM09.250</td>
<td>Quantitative Analysis</td>
</tr>
</tbody>
</table>

### Physical Sciences-Physics

**Required credits**  
20 s.h.

**Introductory Level Course**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS00.150</td>
<td>Physics of Everyday Life</td>
</tr>
</tbody>
</table>

**Advanced Level Courses**

Choose one course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS00.220</td>
<td>Introductory Mechanics</td>
</tr>
<tr>
<td>PHYS00.210</td>
<td>Physics I</td>
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</table>

And choose one course from:

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<tbody>
<tr>
<td>PHYS00.222</td>
<td>Introductory Electricity &amp; Magnetism</td>
</tr>
<tr>
<td>PHYS00.211</td>
<td>Physics II</td>
</tr>
</tbody>
</table>

And choose one course from:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ASTR11.230</td>
<td>Astronomy and Astrophysics</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
</tr>
<tr>
<td>-------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>PHYS00.340</td>
<td>Optics and Light</td>
</tr>
<tr>
<td>PHYS00.300</td>
<td>Modern Physics</td>
</tr>
</tbody>
</table>

**Physics**

**Required credits**
18-19 s.h.

(6 credits must be earned at Rowan University)

**Introductory Level Course**
4 s.h.

**Advanced Level Courses**
11-12 s.h.

And choose one course from:
- PHYS00.310 Analytical Mechanics
- PHYS00.320 Electricity and Magnetism
- PHYS00.410 Quantum Mechanics
- PHYS00.430 Statistical Physics
- PHYS00.340 Optics and Light

**Senior Level Capstone**
3 s.h.

Choose one course from:
- PHYS00.440 Advanced Laboratory
- PHYS00.250 Physics Research

---

**Public Relations in the Workplace**

(12 credits must be earned at Rowan University)

**Required Credits**
18 s.h.

**Introductory Level Course**
3 s.h.

**Advanced Level Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADV04.330</td>
<td>Introduction to Advertising</td>
</tr>
<tr>
<td>PR06.310</td>
<td>Introduction to Public Relations and Advertising Research</td>
</tr>
<tr>
<td>PR06.301</td>
<td>Basic Public Relations Writing</td>
</tr>
<tr>
<td>ADV04.360</td>
<td>Integrated Marketing Communication</td>
</tr>
</tbody>
</table>

**Senior Level Capstone**
3 s.h.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PR99.362</td>
<td>Public Opinion</td>
</tr>
</tbody>
</table>

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**Theatre**

**Required credits**
22 s.h.

**Introductory Level Courses**
7 s.h.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD07.111-.116</td>
<td>Colloquium I and II</td>
</tr>
<tr>
<td>THD07.201</td>
<td>Intro to Theatre and Dance</td>
</tr>
<tr>
<td>THD07.105</td>
<td>Introduction to Performance</td>
</tr>
</tbody>
</table>

**Advanced Level**
12 s.h.

Choose 12 s.h. from:
- THD07.230 Stagecraft I
- THD07.322 Stagecraft II
- THD08.140 Dance Improvisation I
- THD08.141 Dance Improvisation II
- THD07.233 Acting I
- THD07.236 Acting II
- THD07.339 Theatre History to 1700
- THD07.340 Theatre History 1700-1956
- THD08.436 Dance History
- THD07.203 Costuming I
- THD07.204 Costuming II
- THD07.310 Foundation of Theatrical Design
- THD08.126 Movement for the Actor
- THD07.103 Speech for the Stage
- THD08.222 Dance for the Musical Theatre
- THD07.360 Musical Theatre
- THD07.361 Singing for Musical Theatre
- THD07.405 Seminar in Theatre
- THD07.430 Directing I

**Senior Level Capstone**
3 s.h.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD07.440</td>
<td>Contemporary World Theatre</td>
</tr>
</tbody>
</table>
Urban Studies

Required Credits 18 s.h.
(12 credits must be earned at Rowan University)

Introductory Level Courses 3-6 s.h.
Choose one or two courses from:

- HIST05.151 United States History since 1865
- INTR01.130 Women and Gender in Perspective
- SOCO8.120 Introduction to Sociology
- ECON04.102 Intro to Economics-Micro
- GEOG16.160 Intro to Mapping and Geographic Information Systems

Advanced Level Courses 9-12 s.h.
Choose three or four courses from:

- ECON04.360 Urban Economics
- ECON04.210 Environmental Economics
- GEOG16.302 Urban Geography
- HIST05.334 Urban History of the US
- HIST05.474 US Labor History
- SOCO8.320 Urban Sociology
- SOCO8.431 Social Psychology of City Life

Senior Level Capstone 3 s.h.
Choose one course from:

- HIST05.474 US Labor History

Or other senior level course approved by Urban Studies Coordinator and the Liberal Studies: Humanities/Social Science Board.

Women's and Gender Studies

Required credits 18 s.h.
(12 credits must be earned at Rowan University)

Introductory Level Course 3 s.h.

- INTR01.130 Women and Gender in Perspective

Advanced Level Courses 12 s.h.
Choose four courses from:

- ANTH02.322 Sex and Sex Roles in Cross Cultural Perspective
- ARHS03.230 Survey of Women Artists
- CMS04.320 Communicating Gender
- CMS04.310 Images of Gender in Popular Culture
- ECON04.225 Women in the Economy
- ENGL02.200 Women in Literature
- HIST05.417 Women in Islam
- HIST05.418 Women in Europe to 1700
- HIST05.419 Women in Modern Europe
- HIST05.422 Women in American History
- HIST05.425 History of Feminism
- HIST05.429 Pro-Seminar in History: Women in African History
- HIST05.455 Gender, Sexuality and History
- INTR01.200 Issues in Women's Health
- LAWJ05.346 Women, Crime and Criminal Justice
- PHIL09.328 Philosophy and Gender
- PHIL09.346 Feminist Ethics WI
- POSC07.311 Women in American Politics
- PSY01.200 Psychology of Women in Cultural Experience
- RTFO3.272 Images of Women in Film
- SOCO8.370 Sociology of Women
- SOCO8.493 Seminar on Gender Roles
- Various Selected Special Topics Courses approved by WGS Council

Senior Level Courses 3 s.h.

- ANTH02.322 Sex and Sex Roles in Cross Cultural Perspective
- CMS04.320 Communicating Gender
- HIST05.425 History of Feminism
- HIST05.455 Gender, Sexuality and History
- LAWJ05.346 Women, Crime and Criminal Justice
- PHIL09.328 Philosophy and Gender
- SOCO8.370 Sociology of Women
- Various Selected Special Topics Courses approved by WGS Council
## Writing Arts

**Required credits**  
22 s.h.  
(16 credits must be earned at Rowan University)

### Introductory Level Courses
- **WA01.200**  
  *Introduction to Writing Arts*  
  3 s.h.

### Advanced Level Courses
- **WA01.401**  
  *The Writer's Mind*  
  15 s.h.
- **WA01.301**  
  *Writing, Research, and Technology*

Choose one course from:
- **WA07.290**  
  *Creative Writing I*
- **WA07.309**  
  *Writing Children's Stories*

Choose two courses from:
- **WA07.290**  
  *Creative Writing I (if not previously taken)*
- **WA07.309**  
  *Writing Children's Stories (if not previously taken)*
- **WA07.291**  
  *Creative Writing II*
- **WA07.391**  
  *Fiction Writing*
- **WA07.395**  
  *Writing Poetry*
- **RTF03.393**  
  *Film Scenario Writing*
- **WA01.304**  
  *Writing With Style*
- **CMS04.325**  
  *Linguistics*
- **ENGL02.301**  
  *American English Grammar*
- **WA01.302**  
  *Introduction to Technical Writing*
- **JRN02.312**  
  *Magazine Article Writing*
- **WA01.400**  
  *Writing for the Workplace*
- **WA07.410**  
  *Tutoring Writing*

### Senior Level Capstone
- **WA01.405**  
  *Evaluating Writing*  
  4 s.h.
- **WA01.450**  
  *Portfolio Seminar*

**Total credits for B.A. in Liberal Studies: Humanities/Social Science**  
120 s.h.
College of Science and Mathematics

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Dean's Fellow for Program Evaluation
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Lawrence Markowitz
Director for Hollybush Institute
Robinson Hall
856.256.4889
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Michael Tolocka
Director for Environmental Sustainability Institute
Science Hall
856.256.5465
tolocka@rowan.edu

Mission
The College of Science and Mathematics is dedicated to excellence in undergraduate and education and research and increasing the number of students choosing these fields of study. We promote a student-centered approach to learning in a research-rich environment both inside and outside of the classroom. We are committed to providing our students with outstanding degree programs in basic and applied sciences and mathematics and preparing them to function in a multi-cultural and economically interdependent world. As a result, we are preparing students to succeed in quality graduate/professional programs and careers in industry, education, research, government and health professions. The College of Science and Mathematics plays an essential role in educating non-science majors. For these majors, we will
provide a sound grounding in the essentials of science and mathematics that will enable them to better understand the world in which they live and the role of science and scientific thinking in their society.

Departments
The departments in the College are: Biological Sciences, Chemistry and Biochemistry, Computer Science, Mathematics, Nursing, Physics and Astronomy, and Psychology.

Services
OFFICE of HEALTH PROFESSIONS
Tomas Varela
Advisor
Robinson Hall 203
856.256.5480
varela@rowan.edu

The Office of Health Professions strives to provide Rowan students, from all majors, with the appropriate information and resources to develop competitive, well-rounded applications to the various professional graduate programs. The Office will invite these graduate programs on campus to educate students on all aspects of the application process. In addition, the Office will introduce additional careers and workshops that cultivate an environment in which Rowan students are equipped to address current and emerging health issues in the community.

Programs Offered
The College provides General Education courses in the natural sciences, behavioral sciences, and mathematics. These courses give our students a breadth of knowledge while developing skills in oral and written communication, quantitative reasoning, computing, critical thinking, and research. Our students go on to acquire a depth of knowledge in one of the major programs in the College. Expert faculty who have distinguished themselves in their disciplines through research, scholarship, and other professional activities help our students learn both in the classroom, through engaging lectures and interactive pedagogical approaches, and outside of the classroom, through laboratories and research projects. Our faculty care genuinely about the success of our students and make themselves available for advising, mentoring, and academic discussion.

The College also offers pre-professional programs in medicine and allied health. Articulation agreements between Rowan University and professional schools of dentistry, medicine, medical technology, optometry, podiatry and veterinary science help our students make a smooth transition to those schools. A RN to BSN nursing program is also available. The College administers the School of Biomedical Sciences, which is a collaborative entity between the College and the College of Engineering.

Department of Biological Sciences
Maria Tahamont
Chair
Science Hall
856.256.4834
tahamont@rowan.edu

The Biological Sciences Department offers a liberal arts major which leads to a Bachelor of Science degree in Biology. While the Department’s major program ensures that students become well-rounded, it is also flexible enough that students can specialize in a particular area of interest. The Department emphasizes excellence and innovation in teaching in the classroom as well as in the laboratory and in the field. Coursework for the major emphasizes preparing students for career success, including both development of skills and understanding of biological principles. The Department is housed in a modern science building with state-of-the-art research laboratories and teaching laboratories.

Students are encouraged to become engaged in research with faculty members not just as seniors but also as underclassmen. Such research opportunities are a unique experience, allowing a student to work closely with faculty members. Students have the opportunity to network with faculty and students at Cooper Medical School and the School of Osteopathic Medicine.

Rowan University currently has 14 affiliations with health profession schools. Graduating students may take advantage of a diversity of affiliations, including with schools of dentistry, medicine, optometry, physical therapy, podiatry, radiation therapy, toxicology, and veterinary medicine. A current listing of affiliations may be found through the following link: www.rowan.edu/biological/affiliations

Students interested in pursuing a career in K-12 teaching may complete a double major in biology and education. Another pathway for student interested in elementary education is the liberal studies program with a math/science track. Each of these options can lead to Biological Science Certificate required for public school teaching.

Biology majors may participate in any of several concentrations offered by Rowan University. Concentrations suited to biology majors include an Environmental Science concentration, a Pre Health concentration, and a concentration in Bioethics and the Philosophy of Medicine. Biology majors may also choose to complete a minor suited to career plans, such as a minor in Chemistry.
Students are invited to learn more specifics and recent changes regarding the Department’s programs and facilities by visiting at www.rowan.edu/biology

The Biological Sciences Department also supports a variety of other programs on campus as well as General Education. The Department offers a number of courses intended for non-majors, including:

**BIOL01.110**  Human Biology
**BIOL20.100**  Introduction to Natural Resources
**BIOL01.112**  General Biology: Environmental Focus
**BIOL01.113**  General Biology: Human Focus
**BIOL01.115**  General Biology: Plants & People
**BIOL01.105**  Essentials of Biology
**BIOL20.401**  Principles of Ecology
**BIOL01.210**  Biological Systems and Applications

Biology majors should be aware that the above courses may not be counted towards the Biology major.

**BACHELOR OF SCIENCE IN BIOLOGY**

Students majoring in Biology are required to take a four semester introductory sequence (Biology 1 through Biology 4). While this sequence offers greater content knowledge coverage compared to a traditional Biology I & II sequence, it also includes extensive development of skills in the areas of reading and researching primary literature, scientific writing, experimental design, and data analysis.

Beyond the core sequence, majors must take an additional 22 semester hours of Biology courses which must include at least four different laboratory courses. A course in Special Topics in Biological Sciences is required during the student’s Junior or Senior year. A grade of C or higher must be earned in each biology course. An average grade of C is also required for the chemistry, physics, math, and statistics courses listed below. Majors must take at least 15 s.h. of their Biology electives at Rowan University in order to be awarded a degree.

The Department of Biological Sciences advises all students that all Biology courses may require observation of, dissection of, manipulation of and experimentation with living or preserved organisms. These exercises are an integral part of biology courses and provide an essential experience.

**General Education**

All students must complete the University General Education requirements as described on page 31

**Rowan Experience**

All students must complete the Rowan Experience requirements as described on page 33

**Required courses for the Bachelor of Science in Biology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>BIOL01.104</em></td>
<td>Biology 1: Diversity, Evolution, &amp; Adaptation</td>
</tr>
<tr>
<td><em>BIOL01.105</em></td>
<td>Biology 2: Concepts in Genetics</td>
</tr>
<tr>
<td><em>BIOL01.203</em></td>
<td>Biology 3: Introduction to Cell Biology</td>
</tr>
<tr>
<td>BIOL01.204</td>
<td>Biology 4: Global Ecology</td>
</tr>
<tr>
<td>CHEM06.100</td>
<td>Chemistry I</td>
</tr>
<tr>
<td>CHEM06.101</td>
<td>Chemistry II</td>
</tr>
<tr>
<td>CHEM07.200</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM07.201</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>PHYS00.210</td>
<td>Physics I</td>
</tr>
<tr>
<td>PHYS00.211</td>
<td>Physics II</td>
</tr>
<tr>
<td>PHIL09.369</td>
<td>Philosophy of Science</td>
</tr>
<tr>
<td>or PHIL09.376</td>
<td>Philosophy of Medicine</td>
</tr>
<tr>
<td>MATH01.120</td>
<td>Calculus I</td>
</tr>
<tr>
<td>STAT02.280</td>
<td>Biometry</td>
</tr>
</tbody>
</table>

*Transfer students who have taken the equivalent of BIOL01.100 (Biology I) and BIOL01.101 (Biology II) at another institution are required to take BIOL01.202 (Biology 3T: Biological Skills and Methods), which will allow them to take BIOL01.204. This will complete the introductory sequence and allow them to take most Biology electives.*

**Additional Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL01.445</td>
<td>Special Topics (Senior Seminar)</td>
</tr>
<tr>
<td>or BIOL01.475</td>
<td>Lab/Field Research)</td>
</tr>
</tbody>
</table>

**Biology Electives**

Students may choose electives from any 300 or higher-level Biology courses, as well as one of the following 200-level courses: BIOL02.210 (Human Anatomy and Physiology I) and BIOL02.212 (Human Anatomy and Physiology II). Students may count one of these two 200-level courses toward the requirement of four elective lab courses for the major.

**Total credits in program** 120 s.h.

**MINOR IN BIOLOGICAL SCIENCES**

The Minor in Biology consists of 23-24 semester hours, with a minimum of 15 of these to be taken at Rowan University. The 300- or 400-level courses may be taken in any order. In keeping with the policy of the Biology major, any Biology grade
below a C will not count towards the Minor.

- **BIOL01.104** Biology 1: Diversity, Adaptation, & Evolution
- **BIOL01.106** Biology 2: Concepts in Genetics
- **BIOL01.203** Biology 3: Introduction to Cell Biology
- **BIOL01.204** Biology 4: Global Ecology

Two (2) additional Biology courses, both of which must be 300-level or above.

### ENVIRONMENTAL SCIENCE CONCENTRATION

This Interdisciplinary Concentration provides an instructional framework through which students may pursue interests in the areas of Environmental Planning, Environmental Sciences, and Environmental Testing and Technology. The concentration involves 18-24 s.h. of coursework, and is described in more detail within the Interdisciplinary Studies Concentration in this catalog. Course requirements for the concentration are available at the following link: [www.rowan.edu/geography/programs](www.rowan.edu/geography/programs)

### PRE-HEALTH CONCENTRATION

**Tomas Varela**
Program Advisor
203 Robinson Hall
856.256.5480
healthadvising@rowan.edu

This concentration is open to any major at Rowan University and is intended primarily for non-biology majors who intend to enter medical or professional school following graduation at Rowan. The concentration involves 22-23 s.h. The courses incorporated into the concentration are those most often required or recommended for admission to accredited medical schools in the United States. These courses are as follows:

- **BIOL22.335** Genetics
- **PHYS00.211** Physics II
- **MATH01.131** Calculus I
- **CHEM07.348** Biochemistry
  or **BIOL14.440** Introduction to Biochemistry
  One Psychology Course

Plus one of the following:

- **CHEM09.250** Quantitative Analysis
- **BIOL07.301** Comparative Anatomy
- **BIOL01.428** Developmental Biology
- **BIOL11.330** Microbiology

### Department of Chemistry and Biochemistry

**Gregory A. Caputo**
Chair
Science Hall
856.256.5453
caputo@rowan.edu

The Chemistry and Biochemistry Department strives to reach the excellence on innovative educational programs and cutting-edge research. We have made great strides in quality education, providing unique learning opportunities for students and meeting the challenge of industry demands. The Department strongly supports innovation of curriculum to prepare competent majors and encourage fundamental and applied research projects involving our major students.

The Department of Chemistry and Biochemistry offers a Bachelor of Science in Chemistry, a Bachelor of Science in Biochemistry, a Bachelor of Arts in Chemistry and also co-offers a Bachelor of Science in Physical Sciences with the Department of Physics and Astronomy.

Our goal is to prepare students to be contributing members of the scientific community and society at large. We believe this is essential to each student's success in his/her professional career. We believe in rigorous, employment-base learning. It is also important to the students' potential employers and graduate faculty and to society in general as well as to Rowan University and the Department of Chemistry and Biochemistry. We strive to accomplish this goal using a wide variety of techniques that include modern, strong coursework, state-of-the-art instrumentation, hands-on activities, teamwork, and the requirement of research and seminar capstone experiences. In addition, our students participate fully in the general education plan at Rowan.

Students are invited to learn more detailed information about the Department and Programs by visiting the following website: [www.rowan.edu/chemistry](www.rowan.edu/chemistry).

Chemistry and Biochemistry graduates will be able to:

- Demonstrate contemporary skills and knowledge for entry-level positions in the field, or for admission to graduate or professional school
• Ask questions, design experiments, analyze data, and interpret results
• Obtain and use data from the chemical literature
• Effectively communicate orally and in writing
• Work effectively as a member of a team
• Make accurate and precise measurements and observations using scientific instrumentation
• Work safely and with a safety-conscious attitude
• Exhibit ethical scientific conduct
• Behave and think in patterns leading to innovation
• Demonstrate scientific curiosity
• Demonstrate leadership
• Become a lifelong learner

BACHELOR OF SCIENCE IN PHYSICAL SCIENCES (with Physics and Astronomy)

PHYSICAL SCIENCE-CHEMISTRY SPECIALIZATION
Gregory A. Caputo
Program Coordinating Advisor
Science Hall
856.256.5453
caputo@rowan.edu

PHYSICAL SCIENCE-PHYSICS SPECIALIZATION
See the program description listed in the Department of Physics and Astronomy.

BACHELOR OF SCIENCE IN CHEMISTRY
Kandalam Ramanujachary
Coordinator
Science Hall
856.256.5451
chary@rowan.edu

The B.S. degree in Chemistry, approved by the American Chemical Society, prepares students for graduate study and for careers in industry, government or medicine. Laboratories are equipped with modern instrumentation and computers for hands-on use by students at all levels. Each student is expected to carry out a laboratory-based research project.

General Education
All students must complete the University General Education Requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Required Courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL09.369</td>
<td>Philosophy of Science-WI</td>
</tr>
<tr>
<td>MATH01.130</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH01.131</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH01.230</td>
<td>Calculus III</td>
</tr>
<tr>
<td>CS01.104</td>
<td>Intro to Scientific Programming</td>
</tr>
<tr>
<td>PHYS00.220</td>
<td>Introductory Mechanics</td>
</tr>
<tr>
<td>PHYS00.222</td>
<td>Introductory Electricity &amp; Magnetism</td>
</tr>
<tr>
<td>CHEM06.100</td>
<td>Chemistry I</td>
</tr>
<tr>
<td>and CHEM06.101</td>
<td>Chemistry II</td>
</tr>
<tr>
<td>or CHEM06.105</td>
<td>Advanced Chemistry I</td>
</tr>
<tr>
<td>and CHEM06.106</td>
<td>Advanced Chemistry II</td>
</tr>
<tr>
<td>CHEM07.200</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM07.201</td>
<td>Organic Chemistry II</td>
</tr>
<tr>
<td>CHEM06.301</td>
<td>Inorganic Chemistry</td>
</tr>
<tr>
<td>CHEM06.400</td>
<td>Advanced Inorganic Chemistry Lecture</td>
</tr>
<tr>
<td>CHEM06.401</td>
<td>Advanced Inorganic Chemistry Laboratory</td>
</tr>
<tr>
<td>CHEM07.348</td>
<td>Biochemistry</td>
</tr>
<tr>
<td>CHEM09.250</td>
<td>Quantitative Analysis</td>
</tr>
<tr>
<td>CHEM08.400</td>
<td>Physical Chemistry I</td>
</tr>
<tr>
<td>CHEM08.401</td>
<td>Physical Chemistry II</td>
</tr>
<tr>
<td>CHEM08.402</td>
<td>Physical Chemistry Lab I</td>
</tr>
</tbody>
</table>
CHEM08.403  Physical Chemistry Lab II
CHEM09.410  Instrumental Methods
CHEM05.435  Co-op
or CHEM05.440  Research I
CHEM05.450  Seminar I

Restricted Electives  12 s.h.
Chosen with the approval of your advisor. 8 s.h. must be in upper level Chemistry and must have a Physical Chemistry prerequisite. The remainder of the 12 s.h. may be chosen in chemistry or in subjects closely related to chemistry such as physics, biology or mathematics. Students planning graduate study would find a course in differential equations, linear algebra, or advanced physics helpful. See the list of Approved Restricted Electives below.

Free Electives  15 s.h.
Chosen with the help of advisor and with consideration of future educational and career plans.

Total Credits in Program  120 s.h.

List of Approved Restricted Electives

CHEM05.430  Advanced Topics in Chemistry
CHEM07.405  Introduction to Polymer Chemistry
CHEM07.410  Medicinal Chemistry
CHEM07.470  Organic Spectroscopic Analysis (Lecture and Lab)
CHEM07.408  Advanced Biochemistry
CHEM07.409  Advanced Biochemistry Laboratory
CHEM07.431  Advanced Topics in Biochemistry
CHEM07.464  Advanced Organic Chemistry I (Lecture) - WI
CHEM07.475  Polymer Synthesis
CHEM07.478  Polymer Characterization
CHEM07.357  Chemical Biology
CHEM05.310  Independent Study (if taken as a junior or senior)
CHEM09.420  Bioanalytical Chemistry
CHEM07.399  Bioinformatics
CHEM08.410  Survey of Molecular Modelling Methods
CHEM07.492  Pharmaceutical Chemistry
CHEM05.444  Research II
MATH10.210  Linear Algebra
MATH10.131  Ordinary Differential Equations
PHYS00.300  Modern Physics (Lecture and Lab)
PHYS00.340  Optics and Light (Lecture and Lab)
PHYS00.310  Analytical Mechanics (Lecture Only)
PHYS00.330  Mathematical Physics (Lecture Only)
PHYS00.325  Electric Circuits (Lecture and Lab)
PHYS00.320  Electricity and Magnetism I
INTR01.486  Interdisciplinary Materials Science

BACHELOR OF ARTS IN CHEMISTRY
Lei Yu
Coordinator
Science Hall
856.256.5409
yu@rowan.edu

The B.A. degree in Chemistry prepares students for teaching careers in high school or science, businesses or law careers. Laboratories are equipped with modern instrumentation and computers for hands-on use by students at all levels. Each student is expected to carry out a laboratory-based research project.

General Education
All students must complete the University General Education Requirements as described on page 31

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Required Courses

PHIL09.369  Philosophy of Science-WI
MATH10.130  Calculus I
MATH10.131  Calculus II
PHYS00.220  Introductory Mechanics
PHYS00.222  Introductory Electricity & Magnetism
MINOR IN CHEMISTRY

Gregory A. Caputo
Advisor
Science Hall
856.256.5453
caputo@rowan.edu

A chemistry minor is available for any student wishing a coherent sequence of chemistry courses. The minor is not available for Physical Sciences B.S. students specializing in chemistry. Transfer students must complete at least 8 s.h. of the minor at Rowan University.

Requirements

CHEM06.100 Chemistry I

CHEM06.105 Advanced Chemistry I

CHEM06.101 Chemistry II

CHEM06.106 Advanced Chemistry II

CHEM07.200 Organic Chemistry I

CHEM07.201 Organic Chemistry II

CHEM09.250 Quantitative Analysis

CHEM09.410 Instrumentation Methods

Free Electives 39 s.h.

Chosen with the help of the advisor and with consideration of future educational and career plans.

Total Credits in Program 120 s.h.

BACHELOR OF SCIENCE IN BIOCHEMISTRY

Catherine Yang
Coordinator
Science Hall
856.256.5455
yang@rowan.edu

The B.S. Degree in Biochemistry, an interdisciplinary program, is designed to prepare students for a career in biochemistry or graduate studies. Completion of the degree requirements can also increase a student's chances of success in medical, dental or other related health programs by helping students develop a strong academic foundation needed for success in such professional schools. The program combines the value of a liberal education with appropriate classroom and laboratory training in chemistry, biology, math and physics. The focus is on a molecular approach to studying living systems.

The biochemistry major can choose to specialize in related areas of chemistry, biochemistry, molecular biology, genetics or structural biology, pre-med, allied health sciences or biomedical sciences by a careful selection of elective courses. The emphasis in all courses is on the acquisition of a solid knowledge base combined with hands-on laboratory work using modern equipment. Each student is expected to carry out a laboratory-based research project.

General Education

All students must complete the University General Education Requirements as described on page 31

Rowan Experience

All students must complete the Rowan Experience requirements as described on page 33

Required Courses

PHIL09.369 Philosophy of Science-WI

MATH01.130 Calculus I

MATH01.131 Calculus II

CS01.104 Intro to Scientific Programming

or CS01.200 Computing Environments
**College of Science and Mathematics**

**List of Approved Restricted Electives**

- CHEM07.410 Medicinal Chemistry
- CHEM09.410 Instrumental Methods (Lecture and Lab)
- CHEM06.500 Advanced Inorganic Chemistry
- CHEM06.400 Advanced Inorganic Chemistry Lecture
- CHEM06.401 Advanced Inorganic Chemistry Laboratory
- CHEM08.401 Physical Chemistry II (Lecture)
- CHEM07.470 Organic Spectroscopic Analysis (Lecture and Lab)
- CHEM07.431 Advanced topics in Biochemistry
- CHEM07.405 Introduction to Polymer Chemistry
- CHEM05.430 Advanced Topics in Chemistry
- CHEM07.337 Chemical Biology
- CHEM07.492 Pharmaceutical Chemistry
- CHEM08.410 Survey of Molecular Modelling Methods
- CHEM09.420 Bioanalytical Chemistry
- CHEM07.399 Bioinformatics
- BIOL11.370 Microbiology
- BIOL01.430 Immunology
- BIOL22.335 Genetics
- BIOL01.430 Cell Biology
- BIOL01.428 Developmental Biology
- BIOL22.410 Concepts in Human Genetics
- BIOL22.450 Molecular Genetics

**Free Electives**

13 s.h. (14 s.h.)

Chosen with the help of advisor and with consideration for future educational and career plans.

**Total Credits in Program**

120 s.h.

**Department of Computer Science**

Stephen J. Hartley  
Chair  
Robinson Hall  
856.256.4806  
hartley@rowan.edu

The Field of Computer Science deals with computational systems that represent and process symbolic data. Major themes of the Computer Science course offerings include data structures, algorithms, problem-solving techniques, programming languages, software engineering, data communication and networking, and the architecture of digital computer systems. The department offers a Bachelor of Science in Computer Science with several optional specializations and a wide range of advanced electives. This degree prepares graduates for jobs in business and industry, as well as further study at the graduate level. While not all of the restricted electives are offered at night, the degree can be completed by those who can take courses only at night (at or after 4:45 p.m.).

The department also offers a minor in Computer Science and general education courses in computer programming which are available to all students in the University. Computer facilities include workstations and servers running a variety of operating systems on wired and wireless networks. Students become familiar with a wide variety of computing environments and are not required to purchase their own computers.
Specializations: In order to give Computer Science majors the opportunity to concentrate, optional specializations have been added to the Computer Science major at Rowan University. A specialization is composed of four or more specified courses (12 s.h. or more) in Computer Science and other related disciplines that provide a solid foundation in some fundamental area of computer science.

The areas of specialization are software engineering, networking and operating systems, information technology, programming languages and compilers, and artificial intelligence.

The following lists specify the courses making up each specialization.

**Software Engineering (P707)**
- CS07.321 Software Engineering I
- CS07.320 Software Engineering Lab (1 s.h.)
- CS07.322 Software Engineering II

*At least two of the following*
- CS04.305 Web Programming
- CS07.370 Introduction to Information visualization
- CS04.380 Object Oriented Design
- CS04.401 Compiler Design

**Networking and Operating Systems (P706)**
- CS04.390 Operating Systems
- CS06.410 Data Communications and Networking

*At least one of the following*
- CS04.391 Concurrent Programming
- CS04.392 System Programming and Operating System Internals
- CS04.394 Distributed Systems

*And at least one of the following*
- CS06.415 Wireless Networks, Protocols, and Applications
- CS06.416 TCP/IP and Internet Protocols and Technologies

**Information Technology (P703)**
- INTR01.265 or INTR01.266 Computers and Society
- CS04.430 Database Systems: Theory and Programming

*At least two of the following*
- CS04.305 Web Programming
- CS06.410 Data Communications and Networking
- CS06.415 Wireless Networks, Protocols, and Applications
- CS06.416 TCP/IP and Internet Protocols and Technologies
- CS06.420 Embedded Systems Programming

**Programming Languages and Compilers (P704)**
- CS04.315 Programming Languages
- CS04.401 Compiler Design

*At least two of the following*
- CS04.325 Programming in Ada
- CS04.327 Power Java
- CS04.380 Object Oriented Design
- CS06.420 Embedded Systems Programming
- CS07.422 Theory of Computing

**Artificial Intelligence (P702)**
- CS07.450 Artificial Intelligence

*At least three of the following*
- PHIL09.130 Introduction to Symbolic Logic
- CS07.310 Robotics: Software and Mobility
- CS07.340 Design and Analysis of Algorithms
- CS07.460 Computer Vision
- CS07.470 Theory and Applications of Pattern Recognition

**Graphics and Visualization (P708)**

*At least four of the following*
- MATH01.210 Linear Algebra
- CS07.360 Introduction to computer Graphics
- CS07.370 Introduction to Information Visualization
- CS07.380 Introduction to Computer Animation
- CS07.390 Introduction to Computer Game Design and Development

The following limitations apply.
1. A course can be used to satisfy the requirements of at most one specialization.

2. If a student takes the graduate version of a course (senior privilege or accelerated BSMS degree) instead of the undergraduate version, the graduate version will count in a specialization in place of the undergraduate version.

3. A CS01.400 Independent Study or CS01.395 Topics in Computer Science course in the area of a specialization will count as a course in that specialization if approved by the student's advisor subject to the following constraints.
   - An Independent Study/Topics in Computer Science course used by a student to satisfy the requirements of a particular specialization must be 3.0 semester hours or less.
   - At most one Independent Study/Topics in Computer Science Course may be used by a student to satisfy the requirements of any particular specialization.
   - A particular Independent Study/Topics in Computer Science course may be used at most once by a student to satisfy the requirements of a specialization.
   - A student may satisfy the requirements of at most one specialization with Independent Study/Topics in Computer Science courses.

**BACHELOR OF SCIENCE IN COMPUTER SCIENCE**

856.256.4805
computerscience@rowan.edu

The Computer Science major requires courses in mathematics and applied and theoretical computer science. Students, in consultation with faculty advisors, can construct flexible and comprehensive programs. The program prepares students for graduate study in computer science or such related fields as business, operations research, and information sciences. Graduates also find careers in business, industry, government, and education, where they work as applications programmers, scientific programmers, systems programmers, systems analysts, and software engineers. Many students complete a double major with Mathematics, Management Information Systems, Electrical and Computer Engineering or other majors.

It is recommended that the students who are entering the program have several years of high school mathematics and a programming courses. Advanced placement credit is accepted; for incoming freshmen students. A 2.5 grade point average in the required and restricted elective courses together with College Composition I, (not including Calculus I, Computers and Society, or the lab sciences) whether they are taken locally or transferred, is required for graduation. A grade of C- or better in the following courses is required for graduation: Calculus I, Discrete Structures, Introduction to Object-Oriented Programming, Object-Oriented Programming and Data Abstraction, Computer Organization, and Data Structures and Algorithms, whether they are taken locally or are transferred.

**General Education**

All students must complete the University General Education requirements as described on page 31

**Rowan Experience**

All students must complete the Rowan Experience requirements as described on page 33

**Required Courses**

To complete the B.S. degree in computer science, students must complete all courses in the list of required courses.

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH03.160</td>
<td>Discrete Structures</td>
</tr>
<tr>
<td>MATH01.130</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH01.131</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH01.210</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>STAT02.290</td>
<td>Probability and Statistical Inference for Computing Systems</td>
</tr>
<tr>
<td>CS04.113</td>
<td>Intro to Object Oriented Programming</td>
</tr>
<tr>
<td>CS04.114</td>
<td>Object-Oriented Programming and Data Abstraction</td>
</tr>
<tr>
<td>CS04.222</td>
<td>Data Structures and Algorithms</td>
</tr>
<tr>
<td>CS06.205</td>
<td>Computer Organization</td>
</tr>
<tr>
<td>CS07.210</td>
<td>Foundations of Computer Science</td>
</tr>
<tr>
<td>CS07.321</td>
<td>Software Engineering I</td>
</tr>
<tr>
<td>CS04.315</td>
<td>Programming Languages</td>
</tr>
<tr>
<td>CS06.310</td>
<td>Principals of Digital Computers</td>
</tr>
<tr>
<td>CS06.311</td>
<td>Digital Computer Lab</td>
</tr>
<tr>
<td>CS07.340</td>
<td>Design &amp; Analysis of Algorithms</td>
</tr>
<tr>
<td>CS04.390</td>
<td>Operating Systems</td>
</tr>
<tr>
<td>CS04.400</td>
<td>Senior Project</td>
</tr>
<tr>
<td>INTR01.265</td>
<td>Computers and Society</td>
</tr>
</tbody>
</table>

**Lab Sciences**

Choose any three courses from the following list:

**Biology**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL01.104</td>
<td>Diversity, Evolutions &amp; Adaptation</td>
</tr>
<tr>
<td>BIOL01.106</td>
<td>Concepts in Genetics</td>
</tr>
</tbody>
</table>
BIOL01.203  Introduction to Cell Biology
BIOL01.100, 101  Biology I, II (transfers only)
BIOL01.202  Biological Skills and Methods (only when Biology I was transferred)

Chemistry
CHEM06.100  Chemistry I
CHEM06.101  Chemistry II
CHEM09.250  Quantitative Analysis
CHEM07.200  Organic Chemistry

Physics
PHYS00.220  Introductory Mechanics
PHYS00.222  Intro to Electricity & Magnetism
PHYS00.221  Introductory Thermodynamics, Fluids, Waves & Optics
PHYS00.300  Modern Physics
PHYS00.340  Optics and Light
PHYS00.310  Analytical Mechanics
PHYS00.320  Electricity and Magnetism I

Restricted Elective Courses
To complete the B.S. degree in Computer Science, students must complete 12 s.h. from the list of restricted electives.

CS01.395  Selected Topics in CS
CS04.305  Web Programming
CS04.325  Programming in Ada
CS04.380  Object Oriented Design
CS04.391  Concurrent Programming
CS04.392  System Programming and OS Internals
CS04.394  Distributed Systems
CS04.401  Compiler Design
CS04.430  Database Systems: Theory/Programming
CS06.410  Data Communications and Networking
CS06.412  Advanced Computer Architecture
CS06.415  Wireless Networks, Protocols, and Applications
CS06.416  TCP/IP and Internet Protocols and Technologies
CS06.420  Embedded Systems Programming
CS07.310  Robotics
CS07.322  Software Engineering II
CS07.350  Computer Cryptography
CS07.360  Introduction to Computer Graphics
CS07.370  Introduction to Information Visualization
CS07.380  Introduction to Computer Animation
CS07.422  Theory of Computing
CS07.450  Artificial Intelligence
CS07.460  Computer Vision
CS07.470  Theory and Applications of Pattern Recognition
CS09.300  Computer Field Experience

MINOR IN COMPUTER SCIENCE
Total Credits - 24-25 s.h.
The Minor in Computer Science requires student to take the following core courses:

MATH03.160  Discrete Structures
CS04.113  Introduction to Object Oriented Programming
CS04.114  Object Oriented Programming and Data Abstraction
CS04.222  Data Structures and Algorithms
CS06.205  Computer Organization

Students then select two (2) additional elective courses from the following list:

CS07.210  Foundations of Comp Science
CS06.310  Principles of Digital Computers and Digital Computer Lab
CS07.340  Design & Analysis of Algorithms
CS07.321  Software Engineering I
CS04.315  Programming Languages
CS07.340  Design & Analysis of Algorithms
CS04.390  Operating Systems
MATH01.332  Numerical Analysis
CS06.412  Advanced Computer Architecture
NOTE:

• A grade of C- or better is required in all prerequisite courses
• Students may take CS04.103 Computer Science and Programming (if taught in Java) or both CS04.103 Computer Science and Programming (if not taught in Java) and CS04.112 Java for Object Oriented Programmers in place of CS04.113 Introduction to Object-Oriented Programming
• A minimum grade point average of 2.0 is required in the courses completed

ACCELERATED BS/MS IN COMPUTER SCIENCE DUAL DEGREE PROGRAM
856.256.4805
computerscience@rowan.edu

The Accelerated Bachelor of Science/Master of Science (BS/MS) in Computer Science Dual Degree Program allows competent and highly motivated undergraduate students to complete the BS in Computer Science and an MS in Computer Science in five years as opposed to the traditional period of six years if both degrees were completed separately.

Only upper-level undergraduate CS majors who have been admitted into the BS CS Degree Program will be allowed to apply for the Accelerated BS/MS CS Dual Degree Program. Once admitted, a student will enroll as a full-time undergraduate in both undergraduate and graduate CS courses in their first year of the Program to complete requirements for the BS CS Degree and then enroll as a full-time student in graduate CS courses in their second year of the Program to complete requirements for the MS CS Degree.

The MS CS Degree is a 30 credits program. The BS/MS CS Dual Degree is structured so that students first complete requirements for the BS CS Degree Program, but can replace 12 credits of undergraduate CS electives with 12 credits of graduate coursework that are required for the MS CS Degree Program in their senior year (fourth year). In their fifth year students will take the additional 18 graduate credits required for the MS CS Degree.

Department of Mathematics

Dexter Whittinghill
Chair
Robinson Hall
856.256.4844
whittinghill@rowan.edu

The Department offers a Bachelor of Arts, a Bachelor of Science in Mathematics, and an accelerated Bachelor of Science and Master of Arts dual degrees in Mathematics. The B.A. provides a broader liberal arts education whereas the B.S. provides a more specialized and extensive training in mathematics. Students pursuing the B.S. must have taken the calculus sequence and linear algebra with a 3.0 GPA or better.

The Department also offers a minor in Mathematics and concentrations in Applied Mathematics, and Statistics and Operations Research. The Department offers a Master of Arts degree in Mathematics and also supports the Master of Arts in Subject Matter Teaching: Mathematics Education. While the first concern of the 23 full-time and 8 part-time faculty is excellence in teaching, Department members also do research in in pure mathematics, many applied mathematical sciences, statistics, and mathematics and statistics education. The Department also sponsors the Mathematics Team, student competitions, an active faculty-student research agenda, and a regular colloquium series. The Department is located in Robinson Hall, which houses several microcomputer labs and classrooms.

BACHELOR OF ARTS IN MATHEMATICS

The Mathematics major consists of 120 semester hours. The major requires students to take courses in logic, physics, computer science and applied and theoretical mathematics. Students in consultation with faculty advisors can construct flexible and comprehensive programs.

The program prepares students to find careers in business, industry, government or education in positions such as researchers, actuaries, statisticians, analysts or teachers.

Three years of high school mathematics are required for admission; a fourth year of mathematics and at least one programming course is highly recommended. Advanced placement credit is accepted; waivers are available.

Majors must pass all required and restricted elective courses needed for graduation with no grade lower than a C-.
**General Education**
All students must complete the University General Education Requirements as described on page 31

**Rowan Experience**
All students must complete the Rowan Experience requirements as described on page 33

**Required Courses:**
(may also fulfill General Education Requirements)

- **MATH03.150** Discrete Mathematics
- **PHYS00.220** Introductory Mechanics
- **PHYS00.222** Introductory Electricity and Magnetism
- or **PHYS00.221** Introduction to Thermodynamics, Fluids, Waves and Optics
- **CS01.104** Introduction to Scientific Programming
- **PHIL09.130** Introduction to Symbolic Logic

Math majors are also required to complete 7 s.h. of Non-Program courses beyond the 6 s.h. requirement needed to fulfill the Rowan University General Education requirement.

**Required Courses in the major**

**Core Courses**

- **MATH01.130** Calculus I
- **MATH01.131** Calculus II
- **MATH01.230** Calculus III
- **MATH01.210** Linear Algebra
- **MATH01.231** Ordinary Differential Equations
- **MATH01.330** Introduction to Real Analysis I
- **MATH01.340** Modern Algebra I
- **STAT02.360** Probability and Random Variables
- **MATH01.498** Mathematics Seminar (WI) (satisfies Writing Intensive requirement)

**Restricted Electives** Nine (9) s.h. selected from the following:

- **MATH01.205** Technological Tools for Discovering Math
- **MATH01.310** College Geometry
- **MATH01.331** Introduction to Real Analysis II
- **MATH01.332** Numerical Analysis
- **MATH01.341** Modern Algebra II
- **MATH01.352** Theory of Numbers
- **MATH01.354** Introduction to Topology
- **MATH01.386** Introduction to Partial Differential Equations
- **MATH01.410** History of Mathematics
- **MATH01.430** Introduction to Complex Analysis
- **STAT02.361** Introduction to Mathematical Statistics
- **MATH03.400** Applications of Mathematics
- **MATH03.411** Deterministic Models in Operations Research
- **MATH03.412** Stochastic Models in Operations Research

*Note:* College Geometry and History of Mathematics are required for mathematics majors seeking certification as secondary education teachers.

**Total Credits in Program:** 120 s.h.

**BACHELOR OF SCIENCE IN MATHEMATICS**
The B.S. in Mathematics consists of 120 semester hours. The major requires students to take courses in logic, physics, computer science, and applied and theoretical mathematics.

The Bachelor of Science degree in mathematics is, first of all, designed to give the increasing number of our mathematics majors that do not intend to be teachers, the opportunity to prepare more thoroughly for graduate work in mathematics and other disciplines, such as engineering, the physical sciences, statistics, computer science, and other areas requiring extensive mathematical training. The requirements for this degree are also flexible enough so that students intending to seek employment in business, industry, or government can pursue courses of study that will allow them to enter their professions familiar with more of the relevant mathematics. The program is designed to allow students to study the mathematics that they will need with flexibility, breadth, and depth.

At least a 3.0 GPA in Calculus I, Calculus II, and Linear Algebra is required for admission. Majors must pass all required and restricted elective courses needed for graduation with no grade lower than a C-.

**General Education**
All students must complete the University General Education Requirements as described on page 31
**Rowan Experience**

All students must complete the Rowan Experience requirements as described on page 33.

**Required Courses**

(may also fulfill General Education Requirements)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH03.150</td>
<td>Discrete Mathematics</td>
</tr>
<tr>
<td>PHYS00.220</td>
<td>Introductory Mechanics</td>
</tr>
<tr>
<td>PHYS00.222</td>
<td>Introductory Electricity and Magnetism</td>
</tr>
<tr>
<td>or PHYS00.221</td>
<td>Introduction to Thermodynamics, Fluids, Waves and Optics</td>
</tr>
<tr>
<td>CS01.104</td>
<td>Introduction to Scientific Programming</td>
</tr>
<tr>
<td>PHIL09.130</td>
<td>Introduction to Symbolic Logic</td>
</tr>
</tbody>
</table>

Math majors are also required to complete 7 s.h. of Non-Program courses beyond the 6 s.h. requirement needed to fulfill the Rowan University General Education requirement.

**Required Courses in the major**

**Core Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.130</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH01.131</td>
<td>Calculus II</td>
</tr>
<tr>
<td>MATH01.230</td>
<td>Calculus III</td>
</tr>
<tr>
<td>MATH01.210</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH01.231</td>
<td>Ordinary Differential Equations</td>
</tr>
<tr>
<td>MATH01.330</td>
<td>Introduction to Real Analysis I</td>
</tr>
<tr>
<td>MATH01.340</td>
<td>Modern Algebra I</td>
</tr>
<tr>
<td>STAT02.360</td>
<td>Probability and Random Variables</td>
</tr>
<tr>
<td>MATH01.430</td>
<td>Introduction to Complex Analysis</td>
</tr>
<tr>
<td>MATH01.498</td>
<td>Mathematics Seminar (WI) (satisfies Writing Intensive requirement)</td>
</tr>
</tbody>
</table>

**Restricted Electives**

Twenty-seven (27) s.h. selected from the following:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.205</td>
<td>Technological Tools for Discovering Math</td>
</tr>
<tr>
<td>MATH01.310</td>
<td>College Geometry</td>
</tr>
<tr>
<td>MATH01.331</td>
<td>Introduction to Real Analysis II</td>
</tr>
<tr>
<td>MATH01.332</td>
<td>Numerical Analysis</td>
</tr>
<tr>
<td>MATH01.341</td>
<td>Modern Algebra II</td>
</tr>
<tr>
<td>MATH01.352</td>
<td>Theory of Numbers</td>
</tr>
<tr>
<td>MATH01.354</td>
<td>Introduction to Topology</td>
</tr>
<tr>
<td>MATH01.386</td>
<td>Introduction to Partial Differential Equations</td>
</tr>
<tr>
<td>MATH01.410</td>
<td>History of Mathematics</td>
</tr>
<tr>
<td>MATH01.421</td>
<td>Mathematics Field Experience</td>
</tr>
<tr>
<td>STAT02.361</td>
<td>Introduction to Mathematical Statistics</td>
</tr>
<tr>
<td>STAT02.371</td>
<td>Design of Experiments: Analysis of Variance</td>
</tr>
<tr>
<td>MATH03.400</td>
<td>Applications of Mathematics</td>
</tr>
<tr>
<td>MATH03.411</td>
<td>Deterministic Models in Operations Research</td>
</tr>
<tr>
<td>MATH03.412</td>
<td>Stochastic Models in Operations Research</td>
</tr>
</tbody>
</table>

A maximum of two courses from the following list can be counted as restricted electives toward the B.S. in Mathematics:

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM08.401</td>
<td>Physical Chemistry I</td>
</tr>
<tr>
<td>CHEM08.402</td>
<td>Physical Chemistry II</td>
</tr>
<tr>
<td>CS07.340</td>
<td>Design and Analysis of Algorithms</td>
</tr>
<tr>
<td>CS07.422</td>
<td>Theory of Computing</td>
</tr>
<tr>
<td>PHYS00.310</td>
<td>Analytical Mechanics</td>
</tr>
<tr>
<td>PHYS00.330</td>
<td>Mathematical Physics</td>
</tr>
<tr>
<td>PHYS00.430</td>
<td>Statistical Physics</td>
</tr>
<tr>
<td>PHYS00.410</td>
<td>Quantum Mechanics I</td>
</tr>
<tr>
<td>PHYS00.320</td>
<td>Electricity &amp; Magnetism I</td>
</tr>
</tbody>
</table>

**Total Credits in Program** 120 s.h.

**FIVE YEAR ACCELERATED B.S. AND M.A. DEGREE PROGRAM**

Only a student seeking a B.S. degree can apply for this program to the Graduate Program Advisor. If accepted, the Assistant Chair becomes his or her advisor.

**MINOR IN MATHEMATICS**

The study of Mathematics enables a person to understand the nature and functioning of different mathematical systems and the process of solving problems related to these areas. Moreover, the increasing need for mathematical analysis of modern...
day problems will provide good employment opportunities for mathematically trained individuals in government and international agencies, education, business, and industry. People trained in mathematics are needed to solve many of the technical problems of the future.

The Minor in Mathematics encourages and facilitates the acquisition of mathematical skills and concepts. It thus provides an added dimension to a student’s program. Students wishing to Minor in Mathematics must take 21 semester hours, including 15 semester hours in required core courses and 6 semester hours in the approved math electives below.

NOTES: 1) A 2.0 G.P.A. is required in the Minor courses. At least 6 credits must be taken at Rowan University; 2) A number of the elective courses require Discrete Math as a prerequisite. All courses denoted with an asterisk either have Discrete Math as a prerequisite or have another prerequisite for which Discrete Math is a prerequisite. Prerequisite override forms will not be signed without documentation of equivalent subject matter in another course.

In order to Minor in Math you MUST select Track 1 or Track 2.

**Track 1 (not Engineering)**

**Required courses:** 15 s.h.

- MATH01.130 Calculus I
- MATH01.131 Calculus II
- MATH01.230 Calculus III
- MATH01.210 Linear Algebra

**Electives** (at least 6 semester hours) chosen from:

- MATH01.231 Ord Differential Equations
- MATH01.310 College Geometry*
- MATH01.330 Intro to Real Analysis I*
- MATH01.331 Intro to Real Analysis II*
- MATH01.332 Intro to Numerical Analysis
- MATH01.340 Modern Algebra I*
- MATH01.341 Modern Algebra II*
- MATH01.352 Theory of Numbers*
- MATH01.354 Topology*
- STAT02.360 Prob/Random/Variables*
- STAT02.361 Mathematical Statistics*
- MATH01.386 Intro to Partial Diff Eqns
- MATH03.400 App of Mathematics
- MATH03.411 Det Mods in OR
- MATH03.412 Stochastic Mods in OR*
- MATH01.430 Intro to Complex Analysis*

**Track 2 (Engineering)**

**Required courses** 16 s.h.

*Take these three courses*

- MATH01.130 Calculus I
- MATH01.131 Calculus II
- MATH01.230 Calculus III

*or*

*Take these two courses*

- MATH01.140 Accelerated Calc I
- MATH01.141 Accelerated Calc II

*and*

*Take these two courses*

- MATH01.235 Mathematics for Engineering Analysis I
- MATH01.236 Mathematics for Engineering Analysis II

**Electives (at least 6 s.h.) chosen from**

- MATH01.310 College Geometry*
- MATH01.330 Intro to Real Analysis I*
- MATH01.331 Intro to Real Analysis II*
- MATH01.332 Intro to Numerical Analysis
- MATH01.340 Modern Algebra I*
- MATH01.341 Modern Algebra II*
- MATH01.352 Theory of Numbers*
- MATH01.354 Topology*
- STAT02.360 Probability and Random Variables
- STAT02.361 Mathematical Statistics
- MATH01.386 Intro to Partial Diff Eqns
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH03.400</td>
<td>Applications of Mathematics</td>
</tr>
<tr>
<td>MATH03.411</td>
<td>Det Mods in OR</td>
</tr>
<tr>
<td>MATH03.412</td>
<td>Stochastic Mods in OR*</td>
</tr>
<tr>
<td>MATH01.430</td>
<td>Intro to Complex Analysis*</td>
</tr>
</tbody>
</table>

**CONCENTRATION IN APPLIED MATHEMATICS**

The applied mathematics concentration consists of 21 semester hours and increases the mathematics major’s ability to apply various fields of mathematics in the formulation, analysis and evaluation of problems in the physical, biological and social sciences. The concentration provides the opportunity for students to participate in the dynamic character of modern mathematics and its uses.

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.210</td>
<td>Linear Algebra</td>
</tr>
<tr>
<td>MATH01.231</td>
<td>Ordinary Differential Equations</td>
</tr>
<tr>
<td>MATH01.332</td>
<td>Numerical Analysis</td>
</tr>
<tr>
<td>STAT02.360</td>
<td>Probability and Random Variables*</td>
</tr>
<tr>
<td>MATH03.400</td>
<td>Applications of Mathematics</td>
</tr>
<tr>
<td>CS01.xxx</td>
<td>One course in Computer Science (Not CS07.100)</td>
</tr>
</tbody>
</table>

**Elective courses (one):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.430</td>
<td>Introduction to Complex Analysis</td>
</tr>
<tr>
<td>STAT02.361</td>
<td>Mathematical Statistics</td>
</tr>
<tr>
<td>MATH03.411</td>
<td>Deterministic Models in Operations Research</td>
</tr>
<tr>
<td>MATH03.412</td>
<td>Stochastic Models in Operations Research</td>
</tr>
<tr>
<td>PHYS00.310</td>
<td>Analytical Mechanics</td>
</tr>
<tr>
<td>PHYS00.330</td>
<td>Mathematical Physics</td>
</tr>
</tbody>
</table>

**CONCENTRATION IN STATISTICS AND OPERATIONS RESEARCH**

The concentration in Statistics and Operations Research is designed to increase the mathematics major’s abilities in data analysis, mathematical modeling, algorithmic reasoning, and problem solving, as well as one’s knowledge in the fields of probability and mathematical statistics. The concentration provides a viable background for graduate study in these fields, employment in virtually any industry, preparation for the actuarial exam P/1, and the training necessary to teach AP statistics. It consists of 18 credit hours. Nine hours of required courses and nine hours of electives as listed below:

**Required courses:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT02.260</td>
<td>Statistics I</td>
</tr>
<tr>
<td>STAT02.261</td>
<td>Statistics II</td>
</tr>
<tr>
<td>STAT02.360</td>
<td>Probability and Random Variables</td>
</tr>
</tbody>
</table>

**Electives:**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT02.361</td>
<td>Mathematical Statistics</td>
</tr>
<tr>
<td>STAT02.371</td>
<td>Design of Experiments: Analysis of Variance</td>
</tr>
<tr>
<td>MATH03.411</td>
<td>Deterministic Models in Operations Research</td>
</tr>
<tr>
<td>MATH03.412</td>
<td>Stochastic Models in Operations Research</td>
</tr>
</tbody>
</table>

Up to one three-credit course may be approved on a case-by-case basis.

**Department of Physics & Astronomy**

**David Klassen**  
Interim Chair  
Science Hall  
856.256.4391  
klassen@rowan.edu

The Department offers four majors: a Bachelor of Science in Biophysics, a Bachelor of Science in Physics, a Bachelor of Arts in Physics, and a Bachelor of Science in Physical Science. The Physics B.S. program allows the possibility of a Specialization in Photonics. The Physical Science program, which is an interdisciplinary program between the departments of Physics & Astronomy and Chemistry & Biochemistry, allows the possibility of two specializations, one in Physics and one in Chemistry. A minor in Physics and a concentration in Astronomy are also offered for those interested in adding some science content to their program. The department is also part of the interdisciplinary Materials Science concentration.

Physics majors learn significant subject content, develop many marketable skills, and develop well-defined analytical skills. Graduates from the Physics program have moved on to graduate programs in physics, engineering, education, and mathematics. Some have entered professional schools such as law school, medical physics programs, MBA programs or public relations. The remainder have entered the work force as engineers, teachers, computer scientists, and technicians as well as others that have been hired by banks and insurance companies. The diversity of the professions selected by our graduates reflects the versatility of the Physics degree and the importance of analytical skills in almost any area.

The Physical Science major is a very flexible major since many courses can be selected depending on career plans. Perhaps the most important benefit of the program applies to future teachers. The course work allows for students to acquire state certification to teach all physical science subjects at the secondary level in the state of New Jersey by earning a second
degree from the College of Education. However, with the breadth of this program, it offers an excellent preparation for areas where breadth is as important as depth of content knowledge such as journalism or technical writing, technical sales or product representative, or forensic science.

**BACHELOR OF SCIENCE IN PHYSICS**

The B.S. Program in Physics prepares students for graduate school in physics or engineering, professional schools and for careers in industry, government, business or teaching (students interested in teaching should pursue a second major from the College of Education). All laboratories, research and teaching, are well-equipped with state-of-the-art instrumentation, computers and data collection interfaces.

Undergraduate research opportunities exist in diverse areas of experimental physics including optics/laser spectroscopy, condensed matter/materials science, biophysics, theoretical physics including optical physics and high-energy physics, and in planetary science/astronomy researching comets, Mars, and deep space objects. Many opportunities exist for student/faculty collaborative research. These activities are beneficial to the development of students’ analytical skills and are strongly encouraged.

**General Education**

All students must complete the University General Education requirements as described on page 31

**Rowan Experience**

All students must complete the Rowan Experience requirements as described on page 33

**Required Courses**

- PHIL09.369 Philosophy of Science (WI,MG) (or other approved)
- MATH01.130 Calculus I
- MATH01.131 Calculus II
- MATH01.230 Calculus III
- MATH01.210 Linear Algebra
- MATH01.231 Differential Equations
- CS01.104 Introduction Science Programming
  or CS04.103 Computer Science & Programming
- CHEM06.100 Chemistry I
- CHEM06.101 Chemistry II
- PHYS00.220 Introductory Mechanics
- PHYS00.221 Introductory Thermodynamics, Fluids, Waves, & Optics
- PHYS00.222 Introductory Electricity & Magnetism
- PHYS00.300 Modern Physics
- PHYS00.310 Analytical Mechanics
- PHYS00.320 Electricity & Magnetism I
- PHYS00.410 Quantum Mechanics I
- PHYS00.430 Statistical Physics
- PHYS00.440 Advanced Lab

Physics Electives - Choose at least two (6-8 s.h.) courses from:

- PHYS00.321 Electricity & Magnetism II
- PHYS00.325 Electric Circuits
- PHYS00.340 Optics and Light
- PHYS00.345 Introduction to Optical Design Program ZEMAX
- PHYS00.411 Quantum Mechanics II
- PHYS00.470 Selected Topics in Advanced Physics
- PHYS00.499 Independent Study - Physics
- PHYS00.250 Physics Research I
- PHYS00.251 Physics Research II
- PHYS00.350 Physics Research III
- PHYS00.450 Physics Research IV
  or ASTR11.250 Astronomy Research I
- ASTR11.251 Astronomy Research II
- ASTR11.350 Astronomy Research III
- ASTR11.450 Astronomy Research IV

(For Physics or Astronomy Research - Maximum of 3 s.h. count for Physics Electives)

**Restricted Electives**

Choose at least one approved course (3-5 s.h.; the sum of Restricted Electives and Physics Electives must be at least 11 s.h.) from: Physics, Astronomy, Atmospheric Science, Earth Science, Materials Science, Engineering, Math, Chemistry, Computer Science, Biology, or Education, or any Physics Electives listed above

**Free Electives** 13-15 s.h.
BACHELOR OF SCIENCE IN PHYSICS WITH A SPECIALIZATION IN PHOTONICS

A Specialization in Photonics is available to any student desiring a more advanced study of optics and photonics. This specialization is especially useful for Physics majors who are thinking about graduate work and a career in the field of optics and photonics.

To earn the specialization, choose the following free and restricted electives within the program above.

- PHYS00.340: Optics and Light
- PHYS00.321: Electricity and Magnetism II
- PHYS00.345: Introduction to Optical Design Program ZEMAX

Four semester hours of the following:

- PHYS00.250: Physics Research I (in optics)
- PHYS00.251: Physics Research II (in optics)
- PHYS00.350: Physics Research III (in optics)
- PHYS00.450: Physics Research IV (in optics)

BACHELOR OF SCIENCE IN BIOPHYSICS

The B.S. Program in Biophysics prepares students for med school, graduate school in biophysics and for careers in medical industry. While a bit more specialized than the B.S. in Physics, there is still enough broad scientific learning such that the degree can also lead to similar post-graduate paths. All laboratories, research and teaching, are well-equipped with state-of-the-art instrumentation, computers and data collection interfaces. Many opportunities exist for student/faculty collaborative research. These activities are beneficial to the development of students’ analytical skills and are strongly encouraged.

Required Courses

- PHIL09.369: Philosophy of Science (WI,MG) (recommended)
- MATH01.130: Calculus I
- MATH01.131: Calculus II
- MATH01.230: Calculus III
- CHEM06.100: Chemistry I
- CHEM06.101: Chemistry II
- CHEM07.200: Organic Chemistry I
- CHEM07.203: Organic Chemistry II for Biomedical Sciences
- BIOLO1.205: Foundations in Biology for Biomedical Sciences 1
- BIOLO1.206: Foundations in Biology for Biomedical Sciences 2
- PHYS00.220: Introductory Mechanics
- PHYS00.221: Introductory Thermodynamics, Fluids, Waves, & Optics
- PHYS00.222: Introductory Electricity & Magnetism
- PHYS00.300: Modern Physics
- PHYS00.320: Electricity & Magnetism I
- PHYS00.325: Electric Circuits (or approved career-track course)
- PHYS00.330: Mathematical Physics
- PHYS00.340: Optics & Light (or approved career-track course)
- PHYS00.360: Biophysics I
- PHYS00.361: Biophysics II: Biomaterials
- PHYS00.351: Biophysics Research I
- PHYS00.451: Biophysics Research II
- PHYS00.475: Radiation Physics: Fundamentals and Applications

One approved career-track course

Free Electives 7-8 s.h.

Total credits in program 120 s.h.

BACHELOR OF SCIENCE IN PHYSICAL SCIENCE

The B.S. in Physical Science is a joint program of the Department of Physics & Astronomy and the Department of Chemistry & Biochemistry. It provides a broad background in the physical sciences with specializations in chemistry or physics. Students in this program can earn state certification to teach all physical science subjects by earning a second degree from the College of Education. This program can be tailored to provide excellent preparation for careers in science and science-based graduate work as provided in medical, dental, veterinary and optometry schools.

General Education

All students must complete the University General Education requirements as described on page 31.
Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Required Courses
- PHIL09.369 Philosophy of Science (WI, M/G) (or other approved)
- MATH01.130 Calculus I
- MATH01.131 Calculus II
- GEOG16.330 Geology I
- CS01.104 Introduction Science Programming
  or CS04.103 Computer Science & Programming
- CHEM06.100 Chemistry I
- CHEM06.101 Chemistry II
- CHEM07.200 Organic Chemistry I
- CHEM09.250 Quantitative Analysis
- PHYS00.220 Introductory Mechanics
- PHYS00.221 Introductory Thermodynamics, Fluids, Waves, & Optics
- PHYS00.222 Introductory Electricity & Magnetism
- PHYS00.300 Modern Physics
  Approved Astronomy, Atmospheric Science or Geology course 3-4 s.h.
  Approved Career Track Course 3-4 s.h.
  Approved Career Track Course 3-4 s.h.

Physics Specialization
- ASTR11.230 Astronomy and Astrophysics
  Approved Physics Elective 300+ level 4 s.h.
  Approved Physics Elective 300+ level 3-4 s.h.
  Approved Physics Elective 3-4 s.h.

Chemistry Specialization
- CHEM07.201 Organic Chemistry II
- CHEM08.400 Physical Chemistry I
- CHEM07.348 Biochemistry
  An approved Chemistry Elective 3-4 s.h.

Free Electives: 12-16 s.h.
Total credits in program: 120 s.h.

Astronomy Concentration
An Astronomy Concentration is available to any student desiring a more advanced study in astronomy and astrophysics with the requisite quantitative skills and background. This concentration is especially useful for physics majors who are thinking about graduate work in astronomy or astrophysics, or motivated students who want an in-depth survey of modern astronomy.
- MATH01.131 Calculus II
- PHYS00.222 Intro E&M
- ASTR11.200 Exploration of the Solar System
- ASTR11.220 Observational Astronomy
- ASTR11.230 Introduction to Astronomy & Astrophysics
  Choice of one of the following:
  - ASTR11.301 Planetary Astronomy
  - ASTR11.302 Stellar Astrophysics
  - ASTR11.303 Galactic Astronomy & Cosmology

Total credits in concentration: 22 s.h.

BACHELOR OF ARTS IN PHYSICS
The B.A. Program in Physics provides students a flexible program in physics with enough room in general education and free electives to tailor it for their own needs. The degree is designed primarily for those students double-majoring with an education degree but is a suitable fit with any number of majors or minors for those wishing to add a broad-based science or technical background to another area of study. Example career tracks include high school physics teaching, middle-school general science teaching, environmental science, marketing or sales representative for a technical industry, technical writing, medicine, or law.
General Education
All students must complete the University General Education requirements as described on page 33

Rowan Experience
All students must complete the Rowan Experience requirements as described on page 33

Required Courses

PHIL09.369 Philosophy of Science (WI, M/G) (recommended only)
MATH01.130 Calculus I
MATH01.131 Calculus II
MATH01.230 Calculus III
CS01.104 or CS04.103 Intro. Sci. Prog. or Comp. Sci. & Prog.
CHEM06.100 Chemistry I
CHEM06.101 Chemistry II
PHYS00.220 Introductory Mechanics
PHYS00.221 Introductory Thermodynamics, Fluids, Waves, & Optics
PHYS00.222 Introductory Electricity & Magnetism
PHYS00.300 Modern Physics

Physics Electives four courses (14 sh):
Any three 300+ PHYS courses
One approved PHYS or ASTR course

Restricted Electives two courses (6-8 sh) of Approved Career Track Courses

Free Electives 30 s.h.

Total credits in program: 120 s.h.

MINOR IN ASTRONOMY
The Minor in Astronomy has been discontinued and no new students will be admitted into it. Students who declared this minor previously may complete it or may switch to the Concentration in Astronomy.

Requirements 21-22 s.h.

ASTR11.200 Exploration of the Solar System
ASTR11.220 Observational Astronomy
ASTR11.230 Introduction to Astronomy & Astrophysics
PHYS00.340 Optics and Light

Choice of one of the following:
ASTR11.301 Planetary Astronomy
ASTR11.302 Stellar Astrophysics
ASTR11.303 Galactic Astronomy & Cosmology

Choice of one of the following:
200+ ASTR course
300+ PHYS course
Approved math/science elective

MINOR IN PHYSICS
A Physics Minor is available for any student desiring a more extensive introduction to the field and a taste of some more advanced topics in physics. A Physics Minor is particularly valuable for those majoring in Mathematics, Engineering, Computers Science or Chemistry.

Requirements 19-20 s.h.

PHYS00.220 Introductory Mechanics
PHYS00.221 Introductory Thermodynamics, Fluids, Waves, & Optics
PHYS00.222 Introductory Electricity & Magnetism
PHYS00.300 Modern Physics

And any Physics course at or above the 300 level (excluding Physics Research courses)

CONCENTRATION IN MATERIALS SCIENCE
The Concentration in Materials Science is available to several majors at Rowan and is recommended for Physics and Physical Science with Physics or Chemistry Specialization majors intending to attend graduate school in a materials related field or expecting to directly enter the workforce. In addition to your usual major courses, a student seeking this concentration must elect to take Interdisciplinary Materials Science (INTR01.486...3 s.h.) and two addition materials related courses outside their major. (Abbreviated lists depending on major are provided below. These courses were selected since you likely have the prerequisites for these courses in your major. Many other courses contain a materials science component and can be selected with the help of your advisor.)
If your major is Physics, select two courses from the following partial list:

- CHEM06.300  Advanced Inorganic Chemistry
- CHEM07.405  Introduction to Polymer Chemistry
- ECE09.413  Principles of Nondestructive Evaluation
- CHEM06.468  Principles of Electrochemical Engineering
- CHEM06.474  Fundamentals of Particle Technology

If your major is Physical Science/Physics Specialization, select two courses from the following partial list:

- PHYS00.430  Statistical Physics
- PHYS00.440  Advanced Laboratory
- CHEM06.300  Advanced Inorganic Chemistry
- CHEM07.405  Introduction to Polymer Chemistry
- ECE09.413  Principles of Nondestructive Evaluation
- CHEM06.468  Principles of Electrochemical Engineering
- CHEM08.400  Physical Chemistry I
- CHEM06.474  Fundamentals of Particle Technology

If your major is Physical Science/Chemistry Specialization, select two courses from the following partial list:

- CHEM06.300  Advanced Inorganic Chemistry
- CHEM07.405  Introduction to Polymer Chemistry
- ECE09.413  Principles of Nondestructive Evaluation
- CHEM06.468  Principles of Electrochemical Engineering
- CHEM06.474  Fundamentals of Particle Technology

**Department of Psychology**

MaryLouise Kerwin  
Chair  
Robinson Hall  
856.256.4870  
psychadvising@rowan.edu

The objectives of the Psychology Department are to provide its students with the opportunity to appreciate psychology as a liberal academic science, to fulfill their professional ambitions, to develop integrity, to understand and appreciate diversity and multiculturalism in all that they learn and practice, and to learn the skills and values that will equip them to benefit others. Within the climate of a close knit academic community of learners and teachers, the Department offers courses and programs of study in psychology that are designed to give students the academic skills and knowledge they will need for reasoned inquiry, for the pursuit of advanced study, for a socially responsible service-oriented profession, for the development of a better understanding of social relationships and events, and for greater self understanding.

All Psychology majors are expected to meet with their psychology department advisors at least once a semester. The purpose of these meetings is to discuss course selection, progress toward graduation requirements, academic planning, graduate school plans, and career plans.

Transfer students may transfer a maximum of 66 s.h. from other institutions and may not transfer more than 12 s.h. in Psychology major course work. Transfer students must complete a minimum of 54 s.h. including a minimum of 26 s.h. in Psychology coursework at Rowan University to earn a Psychology degree. The Psychology Department does not accept transfer credits earned more than 25 years ago. All Psychology majors are strongly urged to take all of their psychology courses at Rowan University. Students should consult with their advisor before taking courses at other institutions to ensure they will transfer to Rowan.

Psychology majors may take up to 10% of their credit hours pass/no credit, including 6 s.h. in Psychology (students may not take Psychology of Scientific Thinking, Research Methods in Psychology, Statistics in Psychology, nor Advanced Research pass/no credit).

**BACHELOR OF ARTS IN PSYCHOLOGY**

Department of Psychology  
Robinson Hall  
856.256.4870  
psychadvising@rowan.edu

**General Education**  
All students must complete the University General Education requirements as described on page 31

**Rowan Experience**  
All students must complete the Rowan Experience requirements as described on page 33

**Required Courses**  
- MATH01.122  Pre-Calculus
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.202</td>
<td>Intro to Geometry</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>MATH01.115</td>
<td>Contemporary Math</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>STAT02.260</td>
<td>Statistics I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>BIOLO1.113</td>
<td>General Biology: Human Focus</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>BIOL01.104</td>
<td>Biology I: Diversity, Evolution &amp; Adaptation</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>ANTH02.202</td>
<td>Cultural Anthropology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ANTH02.221</td>
<td>Human Variation</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ANTH02.312</td>
<td>Anthropological Perspectives on Human Growth and Development</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHIL09.120</td>
<td>Intro to Philosophy</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHIL09.110</td>
<td>Logic of Everyday Reasoning</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHIL09.227</td>
<td>Philosophy of Mind</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHIL09.369</td>
<td>Philosophy of Science</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHIL09.211</td>
<td>World Philosophy I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHIL09.213</td>
<td>World Philosophy II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.107</td>
<td>Essentials of Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.106</td>
<td>The Psychology of Scientific Thinking</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY07.201</td>
<td>Research Methods in Psychology (prerequisite PSY01.106)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY07.202</td>
<td>Statistics in Psychology (prerequisite PSY07.201 &amp; STAT02.260)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.423</td>
<td>Seminar in Psychology (various topics)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.235</td>
<td>African-American Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.305</td>
<td>Psychology and Law</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.310</td>
<td>Psychology of Racism and Ethnocentrism</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.316</td>
<td>Behavioral Assessment and Measurement</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.329</td>
<td>Health Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.423</td>
<td>Seminar in Psychology (various topics)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.429</td>
<td>History and Systems in Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY02.237</td>
<td>Psychology as a Profession and Practice</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY02.310</td>
<td>Learning and Behavior</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY05.206</td>
<td>Social Psychology (M/G)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.230</td>
<td>Psychology of Personality</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY10.315</td>
<td>Physiological Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY01.326</td>
<td>Perception</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY03.200</td>
<td>Abnormal Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY09.305</td>
<td>Developmental Psychopathology</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

9 additional s.h. of approved psychology electives, 3 of which **must** be from List A below, 3 of which can be from List A or B, and 3 of which can be from List A or C.

### Psychology Electives List

#### List A: Specialized Core Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSY01.105</td>
<td>Psychology of Ethnic Identity and Community in America</td>
</tr>
<tr>
<td>PSY01.200</td>
<td>Psychology of Women and Cultural Experience</td>
</tr>
<tr>
<td>PSY01.235</td>
<td>African-American Psychology</td>
</tr>
<tr>
<td>PSY01.305</td>
<td>Psychology and Law</td>
</tr>
<tr>
<td>PSY01.310</td>
<td>Psychology of Racism and Ethnocentrism</td>
</tr>
<tr>
<td>PSY01.316</td>
<td>Behavioral Assessment and Measurement</td>
</tr>
<tr>
<td>PSY01.329</td>
<td>Health Psychology</td>
</tr>
<tr>
<td>PSY01.423</td>
<td>Seminar in Psychology (various topics)</td>
</tr>
<tr>
<td>PSY01.429</td>
<td>History and Systems in Psychology</td>
</tr>
<tr>
<td>PSY02.305</td>
<td>Applied Behavior Analysis</td>
</tr>
<tr>
<td>PSY03.205</td>
<td>Intake and Interviewing Skills in Psychology</td>
</tr>
<tr>
<td>PSY05.205</td>
<td>Environmental Psychology</td>
</tr>
<tr>
<td>PSY05.310</td>
<td>Psychology of Human Sexuality</td>
</tr>
<tr>
<td>PSY05.402</td>
<td>Psychology of Conflict and Conflict Resolution</td>
</tr>
<tr>
<td>PSY05.410</td>
<td>Community Psychology</td>
</tr>
<tr>
<td>PSY06.300</td>
<td>Psychological Tests and Measurement</td>
</tr>
<tr>
<td>PSY08.215</td>
<td>Consumer Psychology</td>
</tr>
<tr>
<td>PSY08.220</td>
<td>Personnel Psychology</td>
</tr>
<tr>
<td>PSY08.310</td>
<td>Industrial/Organizational Psychology</td>
</tr>
<tr>
<td>PSY12.215</td>
<td>Educational Psychology</td>
</tr>
</tbody>
</table>
List B: Independent Study and Field Experience

- PSY01.419: Independent Study in Psychology
- PSY01.422: Field Experience in Psychology

List C: Additional Coursework in Basic Core Areas

- PSY01.230: Psychology of Personality
- PSY01.326: Perception
- PSY01.327: Cognitive Psychology
- PSY02.310: Learning and Behavior
- PSY03.200: Abnormal Psychology
- PSY05.206: Social Psychology (M/G)
- PSY09.305: Developmental Psychopathology
- PSY10.315: Physiological Psychology

Nonprogram electives: 12 s.h.
Free electives: 21 s.h.
Total Credits in Program: 120 s.h.

MINOR IN PSYCHOLOGY
Psychology Department
Robinson Hall
856.256.4870
psychadvising@rowan.edu

The Department offers a 21 s.h. minor in Psychology. The program is designed for students desiring a substantial background in Psychology while majoring in another field. The minor is designed to allow students the flexibility to choose courses that will further their career goals. Courses should be selected in consultation with the University Advising Center (UAC). Minors may transfer a maximum of 6 s.h. in Psychology courses from other institutions.

Required Courses:
- PSY01.107: Essentials of Psychology
  3 s.h.

Electives:
- Two 300/400 level Psychology courses
  6 s.h.
- Four Psychology courses of any level
  12 s.h.

Total Credits in Minor: 21 s.h.

SPECIALIZATION IN BEHAVIORAL SERVICES FOR CHILDREN AND THEIR FAMILIES
Bethany Raiff
Advisor
Robinson Hall
856.256.4500 x3115
raiff@rowan.edu
www.rowan.edu/psychology/behavioralservices

The Specialization in Behavioral Services for Children and their Families is designed to train Psychology majors to provide effective services for children with behavior problems and/or developmental disabilities. The specialization curriculum emphasizes learning theory, the application of behavioral principles, knowledge of types of problems and issues for which children may need services, interviewing techniques, and supervised experience working with children and their families in the community. Upon completion of the specialization and additional supervised experience students are eligible to apply to become a Board Certified Assistant Behavior Analyst. This specialization is available only to matriculated Psychology majors; however, other students may take courses within the specialization. Students are encouraged to apply for the specialization as early as possible. In addition to the requirements for the Psychology major specialization students must take the following courses:

- PSY02.310: Learning and Behavior
- PSY02.305: Applied Behavior Analysis
- PSY01.316: Behavioral Assessment and Measurement
- PSY09.305: Developmental Psychopathology
- PSY01.424: Professional Issues in Applied Behavior Analysis

Bachelor of Arts in Liberal Studies: Math/Science
Paul Laumakis
Coordinator
Math Department
Robinson Hall
856.256.4500 Ext. 3872
laumakis@rowan.edu

Marlena Herman
The Math/Science specialization of the Liberal Studies major is an interdisciplinary program in mathematics, biological science, earth science, chemistry, computer science, physics, and philosophy. The specialization is structured to offer students introductory, synthesizing, and culminating experiences, as is recommended by the Association of American Colleges and Universities. The specialization requires both lower and upper level courses that build on the University's general education and Rowan experience requirements.

**General Education**
All students must complete the University General Education Requirements as described on page 31

**Rowan Experience**
All students must complete the Rowan Experience requirements as described on page 33

**Required Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHEM05.102</td>
<td>Chemistry of Everyday Life</td>
</tr>
<tr>
<td>PHYS00.150</td>
<td>Physics of Everyday Life</td>
</tr>
<tr>
<td>PHIL09.110</td>
<td>Logic of Everyday Reasoning</td>
</tr>
<tr>
<td>ASTR17.110</td>
<td>Principles of Earth Science</td>
</tr>
<tr>
<td>BIOI01.105</td>
<td>Essentials of Biology</td>
</tr>
<tr>
<td>MATH03.150</td>
<td>Discrete Math</td>
</tr>
<tr>
<td>MATH01.201</td>
<td>Structures of Math</td>
</tr>
<tr>
<td>CS01.200</td>
<td>Computing Environments</td>
</tr>
<tr>
<td>STAT02.260</td>
<td>Statistics I</td>
</tr>
<tr>
<td>ASTR11.200</td>
<td>Exploration of the Solar System</td>
</tr>
<tr>
<td>MATH03.305</td>
<td>Patterns in Nature I: Visual Geometry</td>
</tr>
<tr>
<td>MATH03.315</td>
<td>Patterns in Nature II: Projects in Calculus</td>
</tr>
<tr>
<td>CHEM05.301</td>
<td>Chemistry of the Environment</td>
</tr>
<tr>
<td>BIOL20.401</td>
<td>Principles of Ecology</td>
</tr>
<tr>
<td>INTR02.492</td>
<td>Math/Science Senior Seminar</td>
</tr>
</tbody>
</table>

**Total Credits in Program** 120 s.h.

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**Department of Nursing**

Dawn Specht  
Acting Director  
Shpeen Hall  
856.256.5136  
specht@rowan.edu

The Department of Nursing is an academic department within the College of Science and Mathematics that collaborates with the College of Graduate and Continuing Education (CGCE) to delivers nursing programs in a manner that accommodates the busy schedules of working and aspiring nurses. This is accomplished by combining online coursework with face-to-face classes and labs to provide a balance of convenient scheduling and access to our expert nursing faculty.

**BACHELOR OF SCIENCE IN NURSING (RN TO BSN)**
The Bachelor of Science in Nursing (BSN) is designed to provide RNs with the opportunity to acquire a highly sought after BSN degree with little interruption to professional or personal obligations.

The BSN degree prepares registered nurses for advancement opportunities in the ever-expanding field of nursing. This degree allows nurses to augment their knowledge base and thus enhance their career. This degree also acts as a stepping stone for the nurse who wishes to pursue a Master of Science in Nursing degree with six graduate credits included in the program curriculum. The RN to BSN curriculum includes 121 credits and incorporates all Rowan University requirements for the degree award. Students graduating from a National League for Nursing Accrediting Commission (NLNAC) associate degree or diploma program are awarded 30 nursing credits upon matriculation into the program for all pre-licensure nursing courses. Students may transfer up to 90 credits and must fulfill general education requirements of Rowan University, either through the transfer of credits or the completion of courses at Rowan University. Additional coursework may be required, depending upon the amount of credits transferred in to Rowan. This program may be completed on a part-time basis.

**Basic Admission Requirements**

- Graduation from a National League for Nursing Accrediting Commission (NLNAC) associate degree or diploma program
**General Education**
All students must complete the University General Education requirements as described on page 31

**Rowan Experience**
All students must complete the Rowan Experience requirements as described on page 33

### Nursing Concentration

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS03.303</td>
<td>Comprehensive Health Assessment</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS03.304</td>
<td>Nursing Informatics</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS03.404</td>
<td>Research, Applications in Nursing Practice</td>
<td>3 s.h.</td>
</tr>
<tr>
<td></td>
<td>(Prereq: Statistics)</td>
<td></td>
</tr>
<tr>
<td>NURS03.401</td>
<td>Community Health Nursing</td>
<td>6 s.h.</td>
</tr>
<tr>
<td>NURS03.405</td>
<td>Healthcare Policy &amp; Finance</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS03.403</td>
<td>Nursing Care Delivery Systems</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>NURS03.504</td>
<td>Advanced Pathophysiology (Graduate Course)*</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>NURS03.505</td>
<td>Advanced Pharmacology (Graduate Course)*</td>
<td>3 s.h.</td>
</tr>
</tbody>
</table>

One Nursing Elective: 3-4 s.h.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>NURS03.309</td>
<td>Ethics in Healthcare</td>
<td></td>
</tr>
<tr>
<td>or NURS03.503</td>
<td>Nursing Research (Graduate Course, Prereq: NURS 03.404)</td>
<td></td>
</tr>
</tbody>
</table>

Pre-Licensure Nursing Courses in Transfer: 30 s.h.
Consult an academic advisor for policies relating to awarding of prior nursing credit

**Program Total** 121-122 s.h.
College of Graduate & Continuing Education

Horacio Sosa
Dean
Enterprise Center
856.256.5121
sosa@rowan.edu

The College of Graduate & Continuing Education (CGCE) is Rowan University's vehicle to reach out and serve the needs of the adult student population. Our students include college graduates pursuing graduate or doctoral studies, returning college students pursuing the completion of a baccalaureate degree, employees/employers seeking professional development, and life-long learners looking for personal enrichment. The college places foremost emphasis on making quality education accessible, convenient, and affordable by using delivery modes that address the vast range of adult student needs and preferences. In partnership with Rowan's academic colleges, CGCE currently offers over 31 master's level programs (including specializations), over 31 graduate-level certificate programs, 11 post-baccalaureate programs or endorsements, 2 doctoral/specialist programs, and 3 undergraduate degree completion programs as well as 5 dual Bachelor/Master degrees (4+1).

The College of Graduate & Continuing Education facilitates access to the following Rowan University offerings:

**Graduate Level** (including post-baccalaureate and doctoral) courses/programs available:
- Face-to-face, 16 weeks, and held on one of Rowan's main campuses both full and part time.
- Online, hybrid, or off-site, at an accelerated pace or in some combination of the aforementioned.

**Undergraduate Degree Completion**
- Programs/Courses are offered online, hybrid, off-site, in an accelerated timeline, or some combination of these.

**All Rowan University summer and intersession courses**

**Professional development and personal enrichment**
- non-credit courses, workshops, and seminars.
School of Biomedical Science and Health Professions

Karen Magee-Sauer  
Interim Dean  
Robinson Hall  
856.256.4852  
sauer@rowan.edu

Eddie Guerra  
Associate Dean  
Robinson Hall  
856.256.4323  
guerra@rowan.edu

About the School

Biomedical and health sciences are experiencing unprecedented expansion. The need for qualified professionals with expertise and experience to engage in biomedical and health professions continues to increase. In response, Rowan University created the School of Biomedical Science and Health Professions to operate as the multidisciplinary home for new biomedical science and health programs. The School trains students to join the biotechnology and health-related professions, expands research opportunities at the University, and promotes collaboration within and beyond the University.

Departments

The School consists of two departments: Biomedical and Translational Sciences, Health and Exercise Science

Programs Offered

The School offers the BS in Translational Biomedical Sciences, BS in Health and Exercise Science, BA in Athletic Training, and BA in Education with Specialization in Health and Physical Education.

Department of Biomedical and Translational Sciences

Robinson Hall  
856.256.4323  
bts@rowan.edu

The Department of Biomedical and Translational Sciences provides innovative curricula to prepare students entering the ever-growing biomedical and health workforce. The Department offers a Bachelor of Science in Translational Biomedical Sciences. Students are invited to visit http://www.rowan.edu/colleges/sbshp/department/bts/ to learn more about the department.

BACHELOR OF SCIENCE IN TRANSLATIONAL BIOMEDICAL SCIENCES

Joining the fast-growing biomedical workforce requires diverse training in mathematics, statistics, the life sciences and the physical sciences. The Bachelor of Science in Translational Biomedical Sciences effectively integrates these disciplines to facilitate acquisition of a broad knowledge base and skill set. This major is designed to provide an excellent preparation of undergraduate students who pursue any of the following:

- Apply to medical professional degree programs (MD, DO, etc.)
- Pursue a master’s or doctoral degree in the biomedical field
- Enter the biomedical workforce upon completion of the degree

The program will provide general computation skills, laboratory skills, and analytical skills that will be valuable regardless of the graduates’ ultimate career path.

General Education

All students must complete the University General Education Requirements as described on page 31

Rowan Experience

All students must complete the Rowan Experience requirements as described on page 33

Introductory Courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>BMS01.105</td>
<td>Introduction to Biomedical Sciences I</td>
</tr>
<tr>
<td>BMS01.110</td>
<td>Introduction to Biomedical Sciences II</td>
</tr>
<tr>
<td>CHEM06.100</td>
<td>Chemistry I</td>
</tr>
<tr>
<td>CHEM06.101</td>
<td>Chemistry II</td>
</tr>
<tr>
<td>CHEM07.200</td>
<td>Organic Chemistry I</td>
</tr>
<tr>
<td>CHEM07.203</td>
<td>Organic Chemistry II for Biomedical Sciences</td>
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**Required Biomedical and Translational Courses**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MATH01.130</td>
<td>Calculus I</td>
</tr>
<tr>
<td>MATH01.131</td>
<td>Calculus II</td>
</tr>
<tr>
<td>STAT02.284</td>
<td>Statistics for the Biomedical Sciences</td>
</tr>
<tr>
<td>PHYS00.220</td>
<td>Introductory Mechanics</td>
</tr>
<tr>
<td>PHYS00.222</td>
<td>Introductory Electricity &amp; Magnetism</td>
</tr>
<tr>
<td>PHYS00.221</td>
<td>Introductory Thermodynamics, Fluids, Waves &amp; Optics</td>
</tr>
<tr>
<td>BIOL01.205</td>
<td>Foundations in Biology for Biomedical Sciences 1</td>
</tr>
<tr>
<td>BIOL01.206</td>
<td>Foundations in Biology for Biomedical Sciences 2</td>
</tr>
</tbody>
</table>

**Department of Health and Exercise Science**

Peter Rattigan  
Chair  
Herman D. James Hall  
856.256.4500 x3766  
rattigan@rowan.edu

The Department of Health and Exercise Science prepares professionals who can assume leadership roles in school, community, medical and corporate settings. Student majors are persons interested in working with people of varying ages in the areas of health, wellness, human movement, exercise science, health education, physical education, and athletic training. Career opportunities include: teaching health and physical education (Pre-K-12) in public and private school environments; coaching school and recreational athletic teams; managing health promotion programs in community, corporate and medical settings, providing medical treatment and injury rehabilitation for athletes in various arenas, and working in allied health care settings.

The Department of Health and Exercise Science offers undergraduate majors in three related fields:

**The Bachelors of Arts in Education with Specialization in Health and Physical Education (129 s.h.)** prepares teacher candidates for positions from preschool through high school. This nationally accredited program combines instruction in both Health Education and Physical Education. Successful candidates become dually certified Pre-K-12 Health and Physical Education teachers by the New Jersey State Department of Education.

**The Bachelors of Arts in Health and Exercise Science (122 s.h.)** is a nationally accredited program that offers a major in Health Promotion and Fitness Management (HPFM). HPFM students often go on to work in private fitness facilities, Corporate Health and Wellness Centers, and private and non-profit community and public health programs.

**The Bachelors of Science in Athletic Training (125 s.h.)** is a nationally accredited program which prepares students to become Certified Athletic Trainers. Successful graduates go on to work as Athletic Trainers in various professional settings including public schools, colleges, medical centers, industrial, military and professional sport settings.

All students complete courses in General Education, and core and an academic specialization for their major. The upper-level specialization courses are specific and unique to the professional preparation of the student. The number of semester hours varies for each specialization as indicated above.

The Department has a two-level admission and retention policy. Students seeking admission into Health and Exercise Science programs must meet the admission standards established for all Rowan University students. In order to be admitted into and continue with any major a student must demonstrate an above-average academic ability and be involved in professional-related activities. Each of the three majors offered within the department provide students with numerous experiences and opportunities to grow professionally.

The philosophy of the department is to extend the classroom knowledge and theory into field experience settings. Students in the Health and Physical Education Teacher Certification major will complete field experiences in both elementary and secondary settings at different educational levels including teaching children with special needs. Health Promotion and Fitness Management internships are completed in corporate wellness facilities, community health agencies, and hospital-based wellness and rehabilitation centers. Athletic Training students work with on-campus, high school and possibly professional sport teams.

**BACHELOR OF ARTS IN EDUCATION, SPECIALIZATION IN HEALTH AND PHYSICAL EDUCATION**

Melvin Pinckney  
Advisor  
Herman D. James Hall  
856.256.4576  
pinckney@rowan.edu

**General Education**
All students must complete the University General Education requirements as described on page 31.

**Rowan Experience**
All students must complete the Rowan Experience Requirements as described on page 33.

**Required Courses**
To complete the program, students must have a minimum of 3.0 overall GPA, 3.0 GPA in the specialization, successfully complete the Praxis I exam and the Health and Physical Education Praxis II exam. No grades less than a C - will be counted toward graduation.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT02.100</td>
<td>Elementary Statistics I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>INAR06.200</td>
<td>Basic Nutrition</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HLTH17.327</td>
<td>Consumer Health Decisions</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.109</td>
<td>Adventure/Experiential Learning</td>
<td>2 s.h.</td>
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<tr>
<td>SOC08.120</td>
<td>Introduction to Sociology</td>
<td>3 s.h.</td>
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<tr>
<td>PSY09.209</td>
<td>Child Development</td>
<td>3 s.h.</td>
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<td>or PSY09.210</td>
<td>Adolescent Development</td>
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<tr>
<td>PSY01.107</td>
<td>Essential Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHYS00.150</td>
<td>Physics</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>or BIOL01.113</td>
<td>General Biol Human Focus</td>
<td></td>
</tr>
<tr>
<td>or CHEM05.102</td>
<td>Chemistry of Everyday Life</td>
<td></td>
</tr>
<tr>
<td>THDO8.135</td>
<td>Elements of Dance</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>EDUC01.270</td>
<td>Teaching in Learning Communities I</td>
<td>2/3 s.h.</td>
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<tr>
<td>PHED35.286</td>
<td>Teaching in Learning Communities II</td>
<td>2/3 s.h.</td>
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<tr>
<td>READ30.280</td>
<td>Teaching Reading and Writing in the Content Areas</td>
<td>3 s.h.</td>
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<tr>
<td>FNSD21.150</td>
<td>History of American Education</td>
<td>3 s.h.</td>
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<tr>
<td>SPED08.130</td>
<td>Human Exceptionalities</td>
<td>3 s.h.</td>
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<tr>
<td>FNSD21.230</td>
<td>Characteristics of Knowledge Acquisition</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.116</td>
<td>Safety, First Aid BSC UNDR of Athletic Injury</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.272</td>
<td>Technology &amp; Assessment HES</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.241</td>
<td>Structure Function of the Human Body I (or A&amp;P I)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.242</td>
<td>Structure Function of the Human Body II (or A&amp;P II)</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.240</td>
<td>Motor Development and Motor Learning</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.343</td>
<td>Kinesiology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.344</td>
<td>Exercise Physiology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.252</td>
<td>Foundations of Fitness</td>
<td>3 s.h.</td>
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<tr>
<td>PHED35.316</td>
<td>Teaching Concepts of Dance in Physical Education</td>
<td>3 s.h.</td>
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<tr>
<td>PHED35.310</td>
<td>Teaching Concepts of Secondary Physical Education I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.320</td>
<td>Teaching Concepts Secondary Physical Education II</td>
<td>3 s.h.</td>
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<tr>
<td>HLTH17.325</td>
<td>Teaching Concepts HED I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HLTH17.326</td>
<td>Teaching Concepts HED II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HLTH17.453</td>
<td>School Health Program Planning</td>
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<tr>
<td>PHED35.336</td>
<td>Teaching Concepts Elementary PE</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.452</td>
<td>Teaching Concepts of Adapted PE</td>
<td>3 s.h.</td>
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<tr>
<td>PHED35.450</td>
<td>K-12 Curriculum/Instruction</td>
<td>3 s.h.</td>
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<tr>
<td>PHED35.392</td>
<td>Field experience in Teaching Health and Physical Education</td>
<td>1 s.h.</td>
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<tr>
<td>PHED35.460</td>
<td>Clinical Practice Secondary HPE</td>
<td>5 s.h.</td>
</tr>
<tr>
<td>PHED35.460</td>
<td>Clinical Practice Elementary HPE</td>
<td>5 s.h.</td>
</tr>
<tr>
<td>PHED35.465</td>
<td>Clinical Practice Seminar in HPE</td>
<td>2 s.h.</td>
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</table>

**Total Semester Hours** 129 s.h.
All students must complete the University General Education requirements as described on page 31.

**Rowan Experience**

All students must complete the Rowan Experience Requirements as described on page 33.

**Required Courses**

To complete the program, students must have a minimum of 2.75 overall GPA, 3.0 GPA in the specialization, successfully complete the Praxis I exam. No grades less than a C- will be counted toward graduation.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHYS00.150</td>
<td>Physics</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>or BIOL01.113</td>
<td>General Biol Human Focus</td>
<td></td>
</tr>
<tr>
<td>or CHEM05.102</td>
<td>Chemistry of Everyday Life</td>
<td></td>
</tr>
<tr>
<td>HLTH37.327</td>
<td>Consumer Health Decisions</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HLTH37.192</td>
<td>Contemporary Health I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HLTH37.193</td>
<td>Contemporary Health II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.241</td>
<td>Structure/Function I or Anatomy &amp; Physiology I</td>
<td>3/4 s.h.</td>
</tr>
<tr>
<td>PHED35.242</td>
<td>Structure/Function II or Anatomy &amp; Physiology II</td>
<td>3/4 s.h.</td>
</tr>
<tr>
<td>PHED35.343</td>
<td>Kinesiology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.116</td>
<td>Safety, First Aid BSC UNDR of Athletic Injury</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.272</td>
<td>Technology &amp; Assessment HES</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HLTH37.310</td>
<td>Foundations Health Promotion &amp; Fitness Management</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HLTH37.170</td>
<td>Stress Management</td>
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</tr>
<tr>
<td>HLTH37.350</td>
<td>Health Behavior</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>INAR06.200</td>
<td>Basic Nutrition</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>INAR06.415</td>
<td>Nutrition for Fitness</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>or INAR06.420</td>
<td>Contemporary Issues in Nutrition</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HLTH37.340</td>
<td>Administration Health Promotion &amp; Fitness Management</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.345</td>
<td>Exercise Physiology with Lab</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>HLTH37.329</td>
<td>Lab/Personal Training Technology</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>PHED35.401</td>
<td>Exercise Prescription</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.412</td>
<td>Exercise For Special Population</td>
<td>3 s.h.</td>
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<tr>
<td>HLTH37.340</td>
<td>Practicum in Health Promotion &amp; Fitness Management</td>
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<tr>
<td>HLTH37.483</td>
<td>Field Experience Internship Health Promotion &amp; Fitness Management</td>
<td>9 s.h.</td>
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</table>

*Students are strongly encouraged to complete a minor or concentration using General Education and Free Electives. Recommended minors include Business, Dance, Speech Communication, Computer Science, Foreign Language and Psychology. Recommended concentrations include Pre-medicine, International Studies, Women's Studies, Leadership and Honors.

Total Semester Hours 122 s.h.

**BACHELOR OF SCIENCE IN ATHLETIC TRAINING**

Robert L. Sterner  
Program Director and Advisor  
Herman D. James Hall  
856.256.4500x3767  
sterner@rowan.edu

The Athletic Training Program at Rowan University is a rigorous and intense program designed to prepare students to take the Board of Certification, Inc Exam and to become competent Athletic trainers. A major objective of this program is to prepare graduates to enter a variety of employment settings and to render care to a wide spectrum of individuals engaged in physical activity. The technical standards set forth by the Athletic Training Program establish the essential qualities considered necessary for students admitted to this program to achieve the knowledge, skills, and competencies of an entry-level certified athletic trainer, as well as meet the expectations for the Commission on Accreditation of Athletic Training Education [CAATE].

The following abilities and expectations must be met by all students admitted to the Athletic Training Program. In the event a student is unable to fulfill these technical standards, with or without reasonable accommodation, the student will not be admitted into the program.

Compliance with the program's technical standards does not guarantee a student's eligibility for Athletic Training Program or the Board of Certification (BOC, Inc.) exam.

Candidates for selection to the Athletic Training Program must demonstrate:

1. The capacity to assimilate, analyze, synthesize, integrate concepts and problem solve to formulate assessment and therapeutic judgments and to be able to distinguish deviations from the norm

2. Sufficient postural and neuromuscular control, sensory function, and coordination to perform appropriate physical examinations using accepted techniques; and accurately, safely and efficiently use equipment and materials during the assessment and treatment of patients
3. The ability to communicate effectively and sensitively with patients and colleagues, including individuals from different cultural and social backgrounds; this includes, but is not limited to, the ability to establish rapport with patients and communicate judgments and treatment information effectively. Students must be able to understand and speak the English language at a level consistent with competent professional practice.

4. The ability to record the physical examination results and a treatment plan clearly and accurately.

5. The capacity to maintain composure and continue to function well during periods of high stress.

6. The perseverance, diligence and commitment to complete the athletic training education program as outlined and sequenced.

7. Flexibility and the ability to adjust to changing situations and uncertainty in clinical situations.

8. Affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

General Education
All students must complete the University General Education requirements as described on page 31.

Rowan Experience
All students must complete the Rowan Experience Requirements as described on page 33.

Required Courses
To complete the program, students must have a minimum of 2.5 overall GPA and 3.0 GPA in the Athletic Training major. No grades less than a C in any Athletic Training major course and no grade lower than C- in any other course will be counted toward graduation. Please see the following links for more information:

Pre-requisites for Application to the Athletic Training Program’s Professional Phase
Professional Phase Application Procedures
Final Acceptance Criteria for Professional Phase Application
Athletic Training Program’s Retention Criteria
Athletic Training Program’s Exit (Graduation) Requirements

Please follow Rowan University transfer policy when applying for acceptance to Rowan University. Once accepted into Rowan University, the Athletic Training Program has an additional transfer policy. Please refer to the following: Athletic Training Program’s Transfer Policy.

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>STAT02.100</td>
<td>Elementary Statistics</td>
<td>3 s.h.</td>
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<tr>
<td>PSY01.107</td>
<td>Essentials of Psychology</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PSY09.210</td>
<td>Adolescent Development</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHYS00.150</td>
<td>Physics for Everyday Life</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>or PHYS00.210</td>
<td>Physics I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>BIOL01.113</td>
<td>General Bio Human Focus</td>
<td>4 s.h.</td>
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<tr>
<td>or BIOL01.104</td>
<td>Bio I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>HLTH37.192</td>
<td>Contemporary Health I</td>
<td>3 s.h.</td>
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<tr>
<td>HLTH37.193</td>
<td>Contemporary Health II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>BIOL10.210</td>
<td>Anatomy and Physiology I</td>
<td>4 s.h.</td>
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<tr>
<td>PHED35.450</td>
<td>Anatomy and Physiology II</td>
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<tr>
<td>PHED35.347</td>
<td>Applied Biomechanics</td>
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<td>PHED35.105</td>
<td>Introduction to Athletic Training</td>
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<tr>
<td>PHED35.218</td>
<td>Prevention and Care of Orthopedic Injuries</td>
<td>3 s.h.</td>
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<tr>
<td>PHED35.219</td>
<td>Pathology &amp; Evaluation of Orthopedic Injuries I</td>
<td>3 s.h.</td>
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<td>Pathology &amp; Evaluation of Orthopedic Injuries I - Lab</td>
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<tr>
<td>PHED35.220</td>
<td>Pathology &amp; Evaluation of Orthopedic Injuries II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>PHED35.239</td>
<td>Pathology &amp; Evaluation of Orthopedic Injuries II - Lab</td>
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<td>INAR06.200</td>
<td>Basic Nutrition</td>
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<td>Nutrition For Fitness</td>
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<td>PHED35.334</td>
<td>Advanced Emergency Care</td>
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<td>PHED35.475</td>
<td>Therapeutic Modalities</td>
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<td>PHED35.447</td>
<td>Therapeutic Modalities - Lab</td>
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<td>PHED35.478</td>
<td>Therapeutic Exercise</td>
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<tr>
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<td>Therapeutic Exercise - Lab</td>
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<td>Exercise Prescription</td>
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<td>Clinical Techniques in Athletic Training I</td>
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<td>Clinical Techniques in Athletic Training II</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>PHED35.340</td>
<td>Clinical Techniques in Athletic Training III</td>
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<tr>
<td>PHED35.341</td>
<td>Clinical Techniques in Athletic Training IV</td>
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<tr>
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<td>Residency in Athletic Training II</td>
<td>3 s.h.</td>
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<td>PHED35.360</td>
<td>Residency in Athletic Training III</td>
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<tr>
<td>PHED35.361</td>
<td>Residency in Athletic Training IV</td>
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<tr>
<td>PHED35.479</td>
<td>General Medicine/Pharmacology</td>
<td>3 s.h.</td>
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<tr>
<td>PHED35.495</td>
<td>Organization &amp; Administration of Athletic Training</td>
<td>3 s.h.</td>
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<tr>
<td>PHED35.430</td>
<td>Senior Seminar in Athletic Training</td>
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<tr>
<td>PHED35.477</td>
<td>Psychosocial Aspects of Physical Activity</td>
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</table>

**Total Semester Hours**: 125 s.h.
Faculty List

**Department of Accounting and Finance**

Bao, Da-Hsien (1995)  
**Professor**  
*B.S., Fu Jen Catholic University; M.B.A., Ph.D., University of Southern California*

Chen, Hanmei (2008)  
**Associate Professor**  
*B.S., M.S., Tsinghua University; Ph.D., Arizona State University*

Chung, Shifei (1997)  
**Professor**  
*B.S., National Taiwan University; M.S., University of Wisconsin-Madison; CPA; Ph.D., University of Memphis*

Fabrico, Basile, Tracey (2012)  
**Instructor**  
*B.S. Glassboro State College; MS Weidner University; CPA*

Folkinskhteyn, Daniel (2011)  
**Assistant Professor**  
*B.A. Yale; MS, MBA, Ph.D Temple University*

Hughes, Diane (1987)  
**Associate Professor**  
*B.A., Rutgers College; M.B.A., Long Island University; J.D., Rutgers University*

Isik, Ihsan (2001)  
**Professor**  
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<tr>
<th>Name</th>
<th>Title</th>
<th>Institution(s)</th>
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<tr>
<td>Krummenacher, Claude</td>
<td>Assistant Professor</td>
<td>B.S., Ph.D. University of Lausanne, Switzerland</td>
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<tr>
<td>O'Brien, Terry</td>
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<td>Richmond, Courtney</td>
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<td>B.A., Swarthmore College; Ph.D., University of South Carolina</td>
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<tr>
<td>Robu, Mara</td>
<td>Instructor</td>
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<tr>
<td>Srinivasan, Dayalan</td>
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<td>B.S. University of North Carolina; M.S. Harvard Medical School; Ph.D., Harvard University</td>
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<tr>
<td>Tahamont, Maria</td>
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<td>Vojvodic, Svjetlana</td>
<td>Assistant Professor</td>
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<td>Dahm, Kevin D.</td>
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<td>Farrell, Stephanie</td>
<td>Professor</td>
<td>B.S., University of Pennsylvania; M.S., Stevens Institute of Technology; Ph.D., New Jersey Institute of Technology</td>
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<td>Gephardt, Zenaida Otero</td>
<td>Associate Professor</td>
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<td>Hesketh, Robert P.</td>
<td>Professor</td>
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<td>Newell, James</td>
<td>Professor</td>
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<td>Savelski, Mariano</td>
<td>Professor</td>
<td>B.S., University of Buenos Aires; M.S., University of Tulsa; Ph.D., University of Oklahoma</td>
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<td>Slater, C. Stewart</td>
<td>Professor</td>
<td>B.S., M.S., M. Ph., Ph.D., Rutgers University</td>
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<td>Stachle, Mary M.</td>
<td>Assistant Professor</td>
<td>B.S., Johns Hopkins University; Ph.D., University of Delaware</td>
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<td>Stanzione III, Joseph F.</td>
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<td>B.S., Drexel University, Ph.D., University of Delaware</td>
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<td>Vernengo, Jennifer</td>
<td>Associate Professor</td>
<td>B.S., Ph.D., Drexel University</td>
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**Department of Chemical Engineering**

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<tr>
<th>Name</th>
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<td>Caputo, Greg</td>
<td>Associate Professor</td>
<td>B.S., The Stevens Institute of Technology; Ph.D., Stony Brook University</td>
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<tr>
<td>Jonnalagadda, Subash</td>
<td>Associate Professor</td>
<td>B.Sc., Pondicherry University; M.Sc., University of Hyderabad; Ph.D., Purdue University</td>
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<td>Moura-Letts, Gustavo</td>
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<td>Mugweru, Amos</td>
<td>Associate Professor</td>
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<td>Nazer, Behrooz (2013)</td>
<td>Instructor</td>
<td>Ph.D., Drexel University</td>
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<td>Perez, Lark (2012)</td>
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<td>Ramanujachary, Kandalam V. (1994)</td>
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<tr>
<td>Tolocka, Michael (2013)</td>
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<td>Vaden, Timothy (2010)</td>
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<td>Wu, Chun (2013)</td>
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<td>Yang, Catherine (1995)</td>
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<td>Yang, Yang (2011)</td>
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<td>Yu, Lei (2008)</td>
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<td><strong>Department of Civil and Environmental Engineering</strong></td>
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<td>Cleary, Douglas B. (1998)</td>
<td>Associate Professor</td>
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<tr>
<td>Daraio, Joseph A. (2012)</td>
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<td>Dusseau, Ralph A. (1995)</td>
<td>Professor</td>
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<tr>
<td>Jahan, Kauser (1996)</td>
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<tr>
<td>Mehta, Yusuf A. (2001)</td>
<td>Associate Professor</td>
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<tr>
<td>Morgan, Jenahvive K. (2013)</td>
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<td>Nazari, Rouzbeh (2014)</td>
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<td>Riddell, William (2004)</td>
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<td>Sukumaran, Beena (1998)</td>
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<td>Albone, Kenneth (1982)</td>
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<tr>
<td>Arnold, Lorin B. (1998)</td>
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</tr>
</tbody>
</table>
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<tr>
<th>Name</th>
<th>Title</th>
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<td>Coaxum III, James (1999)</td>
<td>Associate Professor</td>
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<td>Allen, Terri (2011)</td>
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<td>Leva, Kara (2010)</td>
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<td>Walpole, MaryBeth (2000)</td>
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<td>Williams, Barbara Bole (2001)</td>
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<td>Bernard, Pietrucha (2013)</td>
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<td>Name</td>
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<td>Schmalzel, John L.</td>
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<td>Plourde, Bruce</td>
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<td>Slater, Katharine</td>
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<td>Talley, Lee</td>
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<td>B.A., Cornell University; M.A., Ph.D., Princeton University</td>
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<td>Viator, Timothy J.</td>
<td>Professor</td>
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<td>Vitto, Cindy L.</td>
<td>Professor</td>
<td>B.A., Susquehanna University; M.A., Duke University; Ph.D., Rice University</td>
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<td><strong>Department of Foreign Languages and Literatures</strong></td>
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<td>Kaplis-Hohwald, Laurie A.</td>
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<td>Madero, Roberto R.</td>
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<td>Manley, Marilyn S.</td>
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<td>Mas Serna, Maria Esther</td>
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<td>Smith III, Edward C.</td>
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<td>Spencer, Sonia B.</td>
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</table>
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<th>Name</th>
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<td>Blanck, Emily</td>
<td>Associate Professor</td>
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<td>Carrigan, William D.</td>
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<td>Duke-Bryant, Kelly</td>
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<td>Hague, Stephen</td>
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<td>Heinzen, James W.</td>
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<td>Klapper, Melissa R.</td>
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<td>Lindman, Janet M.</td>
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<td>Morschauser, Scott</td>
<td>Associate Professor</td>
<td>B.A., Gettysburg College; Ph.D., Johns Hopkins University</td>
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<td>Rose, Chanelle</td>
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<td>Wang, Q. Edward</td>
<td>Professor</td>
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<td>Wiltenburg, Joy Deborah</td>
<td>Professor</td>
<td>B.A., M.A., University of Rochester; Ph.D., University of Virginia</td>
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**Department of Journalism**

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<td>Berkey-Gerard, Mark</td>
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<td>Cuddy, Claudia</td>
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<td>Hausman, Carl D.</td>
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<tr>
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<td>Quigley, Kathryn</td>
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<td>B.A., Villanova University; M.A., University of Maryland</td>
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**Department of Language, Literacy and Special Education**

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<td>Accardo, Amy L.</td>
<td>Instructor</td>
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<tr>
<td>Bean-Folkes, JaneAnn</td>
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<td>Browne, Susan</td>
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<tr>
<td>Davis, Sharon</td>
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<tr>
<td>Dammers, Richard</td>
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<td>Levinowitz, Lili</td>
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<td>Witten, Dean</td>
<td>Professor</td>
<td>B.M., Eastman School of Music; M.A., Trinity University</td>
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<td>Zuponcic, Veda</td>
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<td>B.M., M.M., Indiana University</td>
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<tr>
<td><strong>Department of Nursing</strong></td>
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<td>Angelow, Anthony</td>
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<td>Ashton, Dianne</td>
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<tr>
<td>Miller, Ellen M.</td>
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</table>

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**Faculty List**

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**Butler, R. Lawrence**

**Professor**

**Department of Psychology**

**Faculty List**
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<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Years</th>
<th>Degree Details</th>
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<tbody>
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<td>Angelone, Bonnie</td>
<td>Associate Professor</td>
<td>2004</td>
<td>B.A., University of Tulsa; M.A., Ph.D., Kent State University</td>
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<td>Angelone, David</td>
<td>Associate Professor</td>
<td>2005</td>
<td>B.A., California State University at Sacramento; M.A., Ph.D., Kent State University</td>
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<tr>
<td>Davis-LaMastro, Valerie</td>
<td>Assistant Professor</td>
<td>1989</td>
<td>B.S., Douglass College, Rutgers University; M.S., Villanova University; Ph.D., University of Delaware</td>
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<tr>
<td>Dihoff, Roberta</td>
<td>Professor</td>
<td>1987</td>
<td>B.A., Rutgers University; M.S., University of Wisconsin at Madison; Ph.D., University of Wisconsin at Madison</td>
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<td>Dinzeo, Tom</td>
<td>Associate Professor</td>
<td>2008</td>
<td>B.A., University of Minnesota; M.A., Kent State University; Ph.D. Kent State University</td>
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<td>Ennis-Soreth, Michelle</td>
<td>Associate Professor</td>
<td>2006</td>
<td>B.A., Rollins College; Ph.D., Temple University</td>
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<td>Gaer, Eleanor</td>
<td>Associate Professor</td>
<td>1972</td>
<td>B.S., University of Wisconsin at Milwaukee; M.S., University of Wisconsin at Madison; Ph.D., University of Illinois; J.D., Rutgers-Camden</td>
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<tr>
<td>Greco, Monica A.</td>
<td>Associate Professor</td>
<td>1990</td>
<td>B.S., Albright College; M.A., Ph.D., Temple University</td>
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<td>Haugh, Jim</td>
<td>Associate Professor</td>
<td>2001</td>
<td>B.A., Baldwin-Wallace College; M.S., Saint Louis University; Ph.D., Saint Louis University</td>
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<td>Hough, Gerald</td>
<td>Associate Professor</td>
<td>2003</td>
<td>B.S., Purdue University; M.S., Ph.D., Ohio State University</td>
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<td>Kerwin, Mary Louise E.</td>
<td>Professor</td>
<td>1996</td>
<td>B.A., M.A., Ph.D., University of Notre Dame</td>
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<td>Raiff, Bethany</td>
<td>Assistant Professor</td>
<td>2012</td>
<td>B.A., University of Wisconsin at Eau Claire; M.S., Ph.D., University of Florida</td>
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<td>Sledjeski, Eve</td>
<td>Instructor</td>
<td>2013</td>
<td>B.S., Mary Washington College; M.A., Kent State University; Ph.D., Kent State University</td>
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<tr>
<td>Stoeckig, Keiko</td>
<td>Assistant Professor</td>
<td>1988</td>
<td>B.A., Bemidji State University; Ph.D., Dartmouth College</td>
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<td><strong>Department of Public Relations and Advertising</strong></td>
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<td>Basso, Joseph</td>
<td>Professor</td>
<td>2003</td>
<td>B.A., M.A., Glassboro State College; Ph.D., Texas A &amp; M University; J.D., Widener University, APR</td>
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<td>FitzGerald, Suzanne Sparks</td>
<td>Professor</td>
<td>1994</td>
<td>B.A., Eastern University; M.S., Drexel University; Ph.D., Temple University; APR Fellow PRSA</td>
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<td>Johnson, Kristine</td>
<td>Assistant Professor</td>
<td>2013</td>
<td>B.S. University of Texas, MS, Texas Christian, Ph.D., Florida State University</td>
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<td>Kim, Bokyung</td>
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<td>2012</td>
<td>B.A. Hamdong Global University, MA, Michigan State University, Ph.D., University of Missouri</td>
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<td>Moore, Edward</td>
<td>Associate Professor</td>
<td>2007</td>
<td>B.A., M.A., Glassboro State College (Rowan University); APR</td>
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<td>Nia-Schoenstein, Asi</td>
<td>Instructor</td>
<td>2004</td>
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<td>Jones, Sandra</td>
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<td>Li, Yuhui</td>
<td>Professor</td>
<td>B.A., Sichuan Foreign Languages Institute, China; M.A., Ohio University; Ph.D., Ohio State University</td>
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</table>
Faculty List

Miller, DeMond S.(1997)  
**Professor**  
*B.A., Northeast Louisiana University; M.S., Ph.D., Mississippi State University*

Rosado, Maria(1993)  
**Professor**  
*B.A., M.A., Ph.D., Rutgers University*

Somm, Anthony J.(1992)  
**Assistant Professor**  
*B.A., M.A., Ph.D., University of Connecticut; M.S.W., Syracuse University*

**Department of Teacher Education (Early Childhood, Elementary Education, Subject Matter)**

**Associate Professor**  
*B.S., M.A., American University of Beirut; Ph.D., University of Illinois Urbana-Champaign*

DeJarnette, Nancy (2010)  
**Assistant Professor**  
*B.S., Minnesota State University, M.S., Minnesota State University, Ed.S. Liberty University, Ed.D., Liberty University*

Graziano, Jane E.(1999)  
**Professor**  
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Holder, Kit K.(1993)  
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*B.A., Hampshire College; M.S. Bank Street College; Ed.D. University of Massachusetts*

Levinowitz, Lili(1989)  
**Professor**  
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**Professor**  
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Meridith, Corine(2006)  
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Morettini, Brianne(2013)  
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Phillips, Anne E.(2001)  
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Pizzillo, Joseph(1971)  
**Professor**  
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Quinnesso, John(2013)  
**Instructor**  
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Rodriguez, Yvonne(1973)  
**Professor**  
*B.A., Rutgers University; M.A., Glassboro State College; Ed.D., Temple University*

Sudeck, Maria R.(2001)  
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Thompson, Carol(2006)  
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*B.A., Wake Forest University, M.Ed., Duke University, Ph.D., University of Pennsylvania*

Viator, Martha(2006)  
**Associate Professor**  
*B.A., University of Louisiana-Lafayette; M.A., Ph.D., Auburn University*
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<tr>
<td>Wassell, Beth</td>
<td>Professor</td>
<td>B.A., Rowan University; M.A., University of Central Florida; Ed.D., University of Pennsylvania</td>
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<td>Weiman, Robert</td>
<td>Assistant Professor</td>
<td>B.A. Williams College; M.A. City University of New York; Ph.D. Univ. of Delaware</td>
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<td>Elkins, Leslie A.</td>
<td>Associate Professor</td>
<td>B.A., Columbia College; M.Ed., Ph. D., Temple University</td>
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<td>Fantova, Marketa</td>
<td>Assistant Professor</td>
<td>B.F.A. DAMU Theatre Academy, Prague; M.F.A. Wayne State University</td>
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<td>Fusco, Thomas A.</td>
<td>Associate Professor</td>
<td>B.A., University of Massachusetts; M.F.A., Boston University</td>
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<td>Hostetter, Anthony</td>
<td>Instructor</td>
<td>B.F.A., Virginia Commonwealth University; M.F.A. Penn State, Ph.D., University of Missouri</td>
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<td>Hostetter, Elisabeth</td>
<td>Associate Professor</td>
<td>B.F.A., Virginia Commonwealth University; M.A., University of Texas; Ph.D., University of Missouri</td>
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<td>Maggor, Rebekah</td>
<td>Assistant Professor</td>
<td>B.A., Columbia University; M.F.A. Moscow Art Theatre/Harvard University</td>
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<td>Roche, Christopher</td>
<td>Assistant Professor</td>
<td>B.A. Catholic University; M.F.A. Ohio State University; Ph.D, Ohio State University</td>
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<td>Savadove, Lane</td>
<td>Assistant Professor</td>
<td>B.A., Haverford College; MFA, Columbia University</td>
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<td>Stewart, Melanie</td>
<td>Professor</td>
<td>B.A., Webster College; M.F.A., Temple University</td>
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<td>Turner, Paule Lawrence</td>
<td>Assistant Professor</td>
<td>B.F.A., Virginia Commonwealth University; M.F.A., Temple University</td>
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<td>Block, Ronald</td>
<td>Associate Professor</td>
<td>B.A., University of Nebraska; M.A., M.S., Syracuse University;</td>
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<td>Chang, Julia</td>
<td>Associate Professor</td>
<td>B.A., Stonehill College; M.S.J., Columbia University; M.A., Temple University</td>
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<td>Courtney, Jennifer</td>
<td>Associate Professor</td>
<td>B.A., Duquesne University; M.A., Western Michigan; Ph.D., Purdue University</td>
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<td>Han, Aiguo</td>
<td>Associate Professor</td>
<td>B.A., Xian Foreign Language University; M.A., Ph.D., Indiana University of Pennsylvania</td>
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<td>Harvey, Roberta K.</td>
<td>Associate Professor</td>
<td>B.A., M.A., University of North Dakota; Ph.D., University of Wisconsin-Milwaukee</td>
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<td>Herberg, Erin V.</td>
<td>Assistant Professor</td>
<td>B.S., B.A., Western Carolina University; M.A., Ph.D., Georgia State University</td>
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<td>Itzkowitz, Martin</td>
<td>Associate Professor</td>
<td>B.A., Brooklyn College; M.A., Ph.D., New York University</td>
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<td>Jahn-Clough</td>
<td>Assistant Professor</td>
<td>B.A., Hampshire College, M.F.A. Emerson College</td>
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<td>Jennifer Tole</td>
<td>Instructor</td>
<td>B.A., Ph.D., Temple University</td>
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**Department of Theatre and Dance**

**Department of Writing Arts**
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<tr>
<th>Faculty Name</th>
<th>Position</th>
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<td>Kopp, Andrew (2009)</td>
<td>Associate Professor</td>
<td>B.A., University of South Florida; M.A., Ph.D., University of Arizona</td>
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<td>Mangini, Laura (2013)</td>
<td>Instructor</td>
<td>B.A., Indiana University of Pennsylvania; M.A., West Virginia University</td>
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<td>Martin, Deb (2003)</td>
<td>Associate Professor</td>
<td>B.S., Western Michigan University; M.A., Ph.D., Texas Woman's University</td>
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<tr>
<td>Maxson, Jeffrey N. (1994)</td>
<td>Associate Professor</td>
<td>B.A., Yale University; M.A., Ph.D., University of California at Berkeley</td>
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<td>Reed, Amy (2012)</td>
<td>Assistant Professor</td>
<td>B.A., B.S., The Ohio State University; M.A., University of Dayton; Ph.D., Virginia Tech University</td>
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<td>Tweedie, Sanford M. (1994)</td>
<td>Professor</td>
<td>B.A., University of Michigan; M.A., Eastern Michigan University; Ph.D., University of Wisconsin-Milwaukee</td>
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<td>Wolff, William (2006)</td>
<td>Associate Professor</td>
<td>B.A., Union College; M.A., University of Cincinnatti; Ph.D., University of Texas</td>
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<td>Woodworth, Amy (2013)</td>
<td>Instructor</td>
<td>B.A., New York University; M.A., Rutgers University at Newark; Ph.D., Temple University</td>
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# Nomenclature of Courses

## Course Information

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Accounting and Finance
Public Relations and Advertising
Foreign Languages and Literature
Africana Studies
Health and Exercise Science
American Studies
Sociology and Anthropology
Foreign Languages and Literature
Art
Physics and Astronomy
Biological Science
Biomedical and Translational Sciences
Civil Engineering
Chemical Engineering
Chemistry and Biochemistry
Foreign Languages and Literature
Communication Studies
Writing Arts
Computer Science
Electrical and Computer Engineering
Teacher Education
Political Science and Economics
Educational Leadership
Teacher Education or Foundations
Political Science and Economics
Teacher Education
English
Engineering
Environmental Studies
Management and Entrepreneurship
Accounting and Finance
Foundations of Education
Foreign Languages and Literature
Geography and the Environment
Foreign Languages and Literature
History
Health and Exercise Science
Honors
Management and Entrepreneurship
Health and Exercise Science
Interdisciplinary
Foreign Languages and Literature
Foreign Languages and Literature
Journalism
Law and Justice Studies
Mathematics
Management and Entrepreneurship
Mechanical Engineering
ROTC
Marketing and Business Information Systems
Marketing and Business Information Systems
Music
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<td>Biological Science</td>
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</table>
General Education Course Listing

Following is a list of all approved General Education courses for the five areas of study. Courses that have at least one prerequisite are denoted with a "^".

**Communication**

**Writing Arts**
- COMP01.105: Intensive College Composition I
- COMP01.111: College Composition I
- HONR01.111: Honors Writing Arts: College Composition I
- COMP01.112*: College Composition II
- HONR01.112: Honors Writing Arts: College Composition II

**Science and Mathematics**

Students must take at least one math course (MATH) and at least one laboratory-based science course (LAB).

**Biological Sciences**
- BIOL01.100: Biology I (LAB)
- BIOL01.101: Biology II (LAB)
- BIOL01.104: Biology 1: Diversity Evolution and Adaptation (LAB)
- BIOL01.106: Biology 2: Concepts in Genetics (LAB)
- BIOL01.110: Human Biology
- BIOL01.112: Biology: Environ. Focus (LAB)
- BIOL01.113: Biology: Human Focus (LAB)
- BIOL01.115: General Biology: Plants and People (LAB)
- BIOL01.210: Human Anatomy & Physiology I (LAB)
- BIOL02.100: Introduction to Natural Resources
- BIOL02.150: Human Ecology: Evolution Approach M/G

**Chemistry and Biochemistry**
- CHEM05.102: Chemistry of Everyday Life (LAB)
- CHEM06.100: Chemistry I (LAB)
- CHEM06.101*: Chemistry II (LAB)
- CHEM06.105*: Advanced College Chemistry I (LAB)
- CHEM06.106*: Advanced College Chemistry II (LAB)

**Computer Science**
- CS01.102: Introduction to Programming
- CS01.104: Introduction to Scientific Programming
- CS01.190: Introduction to Computer Game Modeling
- CS01.200*: Computing Environments
- CS01.210*: Introduction to Computer Networks and Data Communications
- CS04.103: Computer Science and Programming
- CS04.110*: Introduction to Programming Using Robots
- CS04.140: Enterprise Computing I
- CS04.171: Creating Android Applications

**Electrical and Computer Engineering**
- ECE09.204: Clinical and Medical Technology in Today's Medicine (Lab)

**Geography**
- GEOG16.330: Geology I (LAB)
- GEOG16.130: Earth Sciences Lab I
- GEOG16.131: Principles of Earth Science
- GEOG16.133: Meteorology (LAB)

**Health and Exercise Science**
- INAR06.200: Basic Nutrition

**Interdisciplinary**
- INTR01.132: Biology, History and the Fate Human Societies (RS)
- INTR01.138: Issues in Sustainable Development (RS)
- INTR01.140: Diverse Approaches to Environmental Literature (RS)
- INTR01.144: Human Ecology: An Evolutionary Approach (RS)
- INTR01.148: Environmental Ethics: Through the Lens of Diversity (RS)
- INTR01.200: Issues in Women's Health
- HONR05.285: Honors Natural Sciences (H)(Lab 4cr.)

**Marketing/MIS**
- MIS02.110: Integrated Business Software Tools
### Mathematics
- **MATH01.115**: Contemporary Mathematics
- **MATH01.122**: Pre-calculus Mathematics
- **MATH01.123**: College Algebra
- **MATH01.130**<sup>+</sup>: Calculus I
- **MATH01.131**: Calculus II
- **MATH01.201**: Structures of Mathematics
- **MATH01.202**: Introduction to Geometry
- **MATH03.125**: Calculus: Techniques and Applications
- **MATH03.150**: Discrete Mathematics
- **MATH03.160**: Discrete Structures
- **STAT02.100**: Elementary Statistics
- **STAT02.260**: Statistics I
- **HONR05.180**: Honors Mathematics (H)

### Physics and Astronomy
- **PHSC01.110**: Principles of Physical Science
- **PHYS00.120**: Selected Topics In Physics
- **PHYS00.140**: Physics of Current Technologies (LAB)
- **PHYS00.150**: Physics of Everyday Life (LAB)
- **PHYS00.175**: Physics of Sound and Music (LAB)
- **PHYS00.210**: Physics I without Calculus (LAB)
- **PHYS00.211**: Physics II without Calculus (LAB)
- **PHYS00.220**: Introductory Mechanics (LAB)
- **PHYS00.221**<sup>+</sup>: Introduction to Thermodynamics, Fluids, Waves, and Optics (LAB)
- **PHYS00.222**<sup>+</sup>: Introductory Electricity and Magnetism (LAB)
- **ASTR11.120**: Introduction to Astronomy (LAB)
- **ASTR11.120**: Exploration of the Solar System (LAB)
- **ASTR11.230**: Introduction to Astronomy and Astrophysics (LAB)

### Social and Behavioral Sciences
#### Communication
- **CMS04.200**: Introduction to Communication Studies
- **CMS04.210**<sup>+</sup>: Mass Media and Their Influences
- **CMS04.211**<sup>+</sup>: Mass Media and Their Influences (WI)
- **CMS04.220**: Interpersonal Communication
- **CMS04.250**: Communication Theory
- **CMS04.270**: Persuasion & Social Influence
- **PR99.362**<sup>+</sup>: Public Opinion

#### Economics
- **ECON04.100**: American Economic System
- **ECON04.101**: Introduction to Economics-Macro
- **ECON04.102**: Introduction to Economics-Micro
- **ECON04.310**<sup>+</sup>: Global Economics

#### Foreign Languages and Literatures
- **SPAN05.250**: Introduction to Anthropological Linguistics (M/G)

#### Foundations of Education
- **FNDS21.230**: Characteristics of Knowledge Acquisition

#### Geography and the Environment
- **GEOG16.100**: Earth, People and the Environment (M/G)
- **GEOG16.110**: Cultural Geography (M/G)
- **GEOG16.140**: World Regional Geography (M/G)
- **GEOG16.160**: Intro to Mapping and Geographical Information Science
- **GEOG16.240**: Geography of U.S. and Canada
- **PLAN31.280**: Intro to Planning & Environmental Design

#### Health and Exercise Science
- **INAR05.302**: Contemporary American Family
- **PHED35.103**: Health and Wellness
- **PHED35.109**: Adventure and Exeriential Learning
- **PHED35.240**: Motor Development and Motor Learning
- **HLTH37.327**: Consumer Health Decisions

#### Interdisciplinary
- **INTR01.102**: Introduction to the Social Sciences: Self, Society and Power
<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>AFST11.104</td>
<td>Introduction to African American Studies (M/G)</td>
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<tr>
<td>INTR01.130</td>
<td>Women and Gender in Perspective</td>
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<tr>
<td>INTR01.132</td>
<td>Biology, History and The Fate of Human Societies (RS)</td>
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<tr>
<td>INTR01.138</td>
<td>Issues in Sustainable Development (RS)</td>
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<tr>
<td>INTR01.140</td>
<td>Diverse Approaches to Environmental Literature (RS), LIT, M/G)</td>
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<tr>
<td>INTR01.142</td>
<td>Three Generations of Family Life: Diversity and Democracy Through Family (RS)</td>
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<td>INTR01.146</td>
<td>Identity, Culture, and Democracy: Being An American (RS)</td>
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<tr>
<td>INTR01.154</td>
<td>Emotions in Organizations (RS)</td>
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<td>INTR01.158</td>
<td>From Nancy Drew to Lara Croft-Historical and Critical Dimensions of Female Detective Genre (RS)</td>
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<td>INTR01.160</td>
<td>Growing Up Female in 20th Century America (RS)</td>
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<td>INTR01.162</td>
<td>The Leadership of Ideas (RS)</td>
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<td>INTR01.168</td>
<td>What’s Wrong With Normal? (RS)</td>
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<td>INTR01.170</td>
<td>In Search for Democracy: The Quest for Civil Liberties (RS)</td>
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**Law and Justice**

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<td>Survey of Criminal Justice</td>
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<tr>
<td>LAWJ05.315</td>
<td>Criminal Justice and Social Conflict</td>
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<tr>
<td>LAWJ05.330</td>
<td>Problems in World Justice</td>
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**Management of Management and Entrepreneurship**

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<td>Entrepreneurship and Innovation</td>
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**Political Science**

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<td>Introduction to Government Politics (M/G)</td>
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<td>POSC07.110</td>
<td>American Government</td>
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<tr>
<td>POSC07.230</td>
<td>Comparative Political Systems (M/G)</td>
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<tr>
<td>POSC07.310</td>
<td>American Constitutional Law</td>
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<td>POSC07.321</td>
<td>Contemporary World Problems (M/G)</td>
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**Psychology**

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<td>Essentials of Psychology</td>
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<tr>
<td>PSY09.209</td>
<td>Child Development</td>
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<td>PSY09.210</td>
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**Sociology and Anthropology**

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<td>ANTH02.203</td>
<td>Introduction to Archaeology (M/G)</td>
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<td>ANTH02.210</td>
<td>Natives of South America (M/G)</td>
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<td>ANTH02.215</td>
<td>Medical Anthropology (M/G)</td>
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<td>ANTH02.221</td>
<td>Human Variation (M/G)</td>
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<td>Introduction to Anthropological Linguistics (M/G)</td>
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<td>ANTH02.301</td>
<td>Human Evolution (M/G)</td>
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<td>ANTH02.310</td>
<td>Indians of North America (M/G)</td>
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<td>Anthropological Perspectives in Physical Growth &amp; Develop (M/G)</td>
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<td>Comparative Cultures (M/G)</td>
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<td>Social Problems</td>
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**History, Humanities and Language**

**Communication Studies**

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**English**

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<td>ENGL02.112</td>
<td>Readings in Asian Literature (LIT, M/G)</td>
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<td>ENGL02.113</td>
<td>Readings in U.S. Literature (LIT)</td>
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<td>Readings in Non Western Literature (LIT, M/G)</td>
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**Foundations of Education**

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**History**

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<td>HIST05.101</td>
<td>Western Civilization since 1660</td>
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<tr>
<td>HIST05.120</td>
<td>World History since 1500 (M/G)</td>
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<td>HIST05.150</td>
<td>U.S. History to 1864</td>
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<td>HIST05.151</td>
<td>U.S. History since 1865</td>
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<td>HIST05.376</td>
<td>African-American History to 1865</td>
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<td>HIST05.377</td>
<td>African-American History since 1865</td>
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**Interdisciplinary**

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<tbody>
<tr>
<td>INTR01.120</td>
<td>Biology, History and Human Societies (M/G)</td>
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<td>INTR01.132</td>
<td>Biology, History and the Fate Human Societies (RS)</td>
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<td>INTR01.134</td>
<td>Readings in American Democracy (RS)</td>
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<td>INTR01.136</td>
<td>Gateway to Asia (RS)</td>
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<tr>
<td>INTR01.140</td>
<td>Diverse Approaches to Environmental Literature (RS, LIT, M/G)</td>
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</table>
General Education Course Listing

Environmental Ethics: Through the Lens of Diversity (RS)
Language, Rhetoric and Propaganda: The Weapons of the Cold War (RS)
Freedom and Artistic Expression-20th Century America (RS)
From Nancy Drew to Lara Croft-Historical and Critical Dimensions of Female Detective Genre (RS)
Growing Up Female in 20th Century America (RS)
Science Fiction as a Gateway to Human Diversity (RS)
Songs of Praise and Protest (RS)
Ethics and the Professions
In Search of Democracy: The Quest for Civil Liberties (RS)
HONR05.205 Honors Humanities (H)
HONR05.217 Honors Literature (H)

Philosophy
PHIL09.110 Logic of Everyday Reasoning
PHIL09.120 Introduction to Philosophy (M/G)
PHIL09.121^ Introduction to Philosophy (M/G, WI)
PHIL09.130 Introduction to Symbolic Logic
PHIL09.211 World Philosophy I (WI, M/G)
PHIL09.213 World Philosophy II (WI, M/G)
PHIL09.226 Philosophy of Mind
PHIL09.227^ Philosophy of Mind (WI)
PHIL09.240 Philosophy and Society (LIT)
PHIL09.241^ Philosophy and Society (LIT, WI)
PHIL09.250 Introduction to Ethics (LIT)
PHIL09.251^ Introduction to Ethics (LIT, WI)
PHIL09.310 Aesthetics (LIT)
PHIL09.311^ Aesthetics (LIT, WI)
PHIL09.328 Philosophy and Gender (M/G)
PHIL09.341 Biomedical Ethics (WI)
PHIL09.346 Feminist Ethics (WI)
PHIL09.368 Philosophy of Science (M/G)
PHIL09.369^ Philosophy of Science (M/G, WI)
PHIL09.376^ Philosophy of Medicine (M/G, WI)
PHIL09.392 Contemporary Moral Problems (M/G)
PHIL09.393^ Contemporary Moral Problems (M/G, WI)
PHRE11.310 Spirituality and Healing (M/G)

Political Science
POSC07.200 Survey of Western Political Theory

Reading
READ30.120 Literacies in Today's World

Religion
REL10.100 Introduction to Religion
REL10.200 Religions of the World (M/G)
REL10.210 Religion in America (M/G)
PHRE11.310 Introduction to Buddhism (M/G)
REL10.240 Introduction to the Bible (LIT)
REL10.301 Introduction to Judaism (M/G)
REL10.320 Introduction to Christianity (M/G)
REL10.230 Religions of Asia (M/G)
PHRE11.330 Introduction to Daoism (M/G)

Theatre and Dance
THD07.339 History of Theatre to 1700
THD07.340 History of Theatre from 1700-1956
THD07.440 Contemporary World Theatre (WI, LIT)
Rowan Experience Course Listing

An abridged list of approved courses that meet the Rowan Experience requirements are listed below. Courses that have at least one pre-requisite are denoted with an ^.

Artistic and Creative Experience Courses (ACE)

Note: Courses listed under (ACE) with LIT, RS, WI, or M/G designation also fulfill the Literature, Rowan Seminar, Writing Intensive, or Multicultural/Global requirement in addition to the ACE requirement. Typically, the (ACE) course fulfills an area of study currently listed in General Education as Artistic and Creative Experience.

Art

- ART02.300 Workshop in Art
- ARHS03.130 Art Appreciation
- ARHS03.220 Modern Art
- ARHS03.310 History of American Art
- ART39.330 General Photography
- ART09.110 Experiencing Art

Engineering

- ECE09.100 Signals, Systems and Music

Interdisciplinary

- INTR01.152 Beyond Face Value: Critical Analysis of Texts & Image (RS)
- INTR01.166 Rhetoric of Music (RS)
- INTR01.172 Songs of Praise/Protest (RS)
- INTR01.176 Historical Aesthetics of Suffering (RS)
- HONR05.214 Honors Artistic and Creative Experience

Music

- MUS04.118 Music Fundamentals
- MUS04.140 Wind Ensemble
- MUS04.141 String Ensemble
- MUS04.142 College Band
- MUS04.143 Jazz Band
- MUS04.144 Orchestra
- MUS04.145 Lab Band
- MUS04.146 Concert Choir
- MUS04.147 Contemporary Music Ensemble
- MUS04.148 Percussion Ensemble
- MUS04.149 Guitar Ensemble
- MUS04.150 Flute Ensemble
- MUS04.151 Opera Company
- MUS04.152 Saxophone Ensemble
- MUS04.153 Clarinet Ensemble
- MUS04.154 Women’s Chorus
- MUS04.155 Men’s Chorus
- MUSG06.100 Signals, Systems and Music
- MUSG06.102 General Music History
- MUSG06.109 Music Appreciation
- MUSG06.115 Growth and Development of Jazz (M/G)
- MUSG06.117 Expressing Music
- MUSG06.214 Musical Styles and Forms I
- MUSG06.215 Musical Styles and Forms II
- MUSG06.335 Musical Styles and Forms III
- MUSG06.447 Music in World Cultures: Asia and Oceania (M/G)
- MUSG06.448 Music in World Cultures: Africa India, Near and Middle East (M/G)

Radio, TV and Film

- RTF03.270^ Film History and Appreciation I
- RTF03.271^ Film History and Appreciation II
- RTF03.273 The Movie industry

Theatre and Dance

- THD07.130 Living Theatre
- THD07.135 Oral Interpretation of Literature
- THD07.195 Exploring Social Issues Through Theatre
- THD07.215 Experiencing Acting
- THD07.301 African, African - American Theatre: Intercultural Definitions
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD07.339</td>
<td>History of Theatre to 1700</td>
</tr>
<tr>
<td>THD07.340</td>
<td>History of Theatre from 1700-1956</td>
</tr>
<tr>
<td>THD07.440</td>
<td>Contemporary World Theatre (LIT, WI)</td>
</tr>
<tr>
<td>THD08.133</td>
<td>Elements of Dance</td>
</tr>
<tr>
<td>THD08.146</td>
<td>World Dance Forms</td>
</tr>
<tr>
<td>THD08.202</td>
<td>Tap I</td>
</tr>
<tr>
<td>THD08.236</td>
<td>Modern Dance I</td>
</tr>
<tr>
<td>THD08.246</td>
<td>Ballet I</td>
</tr>
<tr>
<td>THD08.256</td>
<td>Jazz Dance I</td>
</tr>
<tr>
<td>THD08.311</td>
<td>African Influences in American Dance</td>
</tr>
<tr>
<td>THD08.315</td>
<td>Creative Dance for Children</td>
</tr>
<tr>
<td>THD08.436</td>
<td>Dance History</td>
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**Literature Courses (LIT)**

**English**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ENGL02.110</td>
<td>Readings in British Literature</td>
</tr>
<tr>
<td>ENGL02.112</td>
<td>Readings in Asian Literature (M/G)</td>
</tr>
<tr>
<td>ENGL02.113</td>
<td>Readings in U.S. Literature</td>
</tr>
<tr>
<td>ENGL02.116</td>
<td>Readings in Non Western Literature (M/G)</td>
</tr>
<tr>
<td>ENGL02.123</td>
<td>Experiencing Literature</td>
</tr>
<tr>
<td>ENGL02.151</td>
<td>Readings in Shakespeare</td>
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**Foreign Language**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>FREN02.100</td>
<td>Masterpieces of French Literature in Translation</td>
</tr>
<tr>
<td>GERM03.100</td>
<td>Masterpieces of German Literature in Translation</td>
</tr>
<tr>
<td>SPAN05.100</td>
<td>Masterpiece of Hispanic Literature in English Translation</td>
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**Interdisciplinary**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>INTR01.140</td>
<td>Diverse Approaches to Environmental Lit (RS, M/G)</td>
</tr>
<tr>
<td>HONR05.217</td>
<td>Honors Literature (H)</td>
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**Philosophy and Religion**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHIL09.240</td>
<td>Philosophy and Society</td>
</tr>
<tr>
<td>PHIL09.241</td>
<td>Philosophy and Society (WI)</td>
</tr>
<tr>
<td>PHIL09.250</td>
<td>Introduction to Ethics</td>
</tr>
<tr>
<td>PHIL09.251</td>
<td>Introduction to Ethics (WI)</td>
</tr>
<tr>
<td>PHIL09.310</td>
<td>Aesthetics</td>
</tr>
<tr>
<td>PHIL09.311</td>
<td>Aesthetics (WI)</td>
</tr>
<tr>
<td>REL10.240</td>
<td>Introduction to the Bible</td>
</tr>
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</table>

**Theatre and Dance**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>THD07.440</td>
<td>Contemporary World Theatre (ACE, WI)</td>
</tr>
</tbody>
</table>

**Multicultural/Global (M/G)**

The courses listed below all fulfill the requirement of one Multicultural/Global course:

**Biological Sciences**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>BIOL20.150</td>
<td>Human Ecology: Evolution Approach</td>
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</table>

**Communication**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CMS04.360</td>
<td>Intercultural Communication</td>
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**Economics**

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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ECON04.307</td>
<td>Economic Development</td>
</tr>
<tr>
<td>ECON04.320</td>
<td>Contemporary Economic Systems</td>
</tr>
</tbody>
</table>

**English**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>ENGL02.112</td>
<td>Readings in Asian Literature (LIT)</td>
</tr>
<tr>
<td>ENGL02.116</td>
<td>Readings in Non Western Literature(LIT)</td>
</tr>
<tr>
<td>ENGL02.216</td>
<td>African American Lit Through Harlem Renaissance</td>
</tr>
<tr>
<td>ENGL02.217</td>
<td>U.S. Literature of Latino and Hispanic Peoples</td>
</tr>
<tr>
<td>ENGL02.200</td>
<td>Women in Literature</td>
</tr>
<tr>
<td>ENGL02.338</td>
<td>Special Topics in Non-Western Literature</td>
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</table>

**Foreign Languages and Literature**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SPAN05.250</td>
<td>Introduction to Anthropological Linguistics</td>
</tr>
<tr>
<td>SPAN05.324</td>
<td>Spanish American Civilization and Culture</td>
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</table>

**Finance**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
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<tbody>
<tr>
<td>FIN04.435</td>
<td>International Finance Management</td>
</tr>
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</table>
### Geography and the Environment

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>GEOG16.100</td>
<td>Earth, People and Environment</td>
</tr>
<tr>
<td>GEOG16.110</td>
<td>Cultural Geography</td>
</tr>
<tr>
<td>GEOG16.140</td>
<td>World Regional Geography</td>
</tr>
<tr>
<td>GEOG16.301</td>
<td>Economic Geography</td>
</tr>
<tr>
<td>GEOG16.303</td>
<td>Political Geography</td>
</tr>
<tr>
<td>GEOG16.304</td>
<td>Population Geography</td>
</tr>
<tr>
<td>GEOG16.342</td>
<td>Geography of Europe</td>
</tr>
<tr>
<td>GEOG16.343</td>
<td>Geography of Asia</td>
</tr>
<tr>
<td>GEOG16.344</td>
<td>Geography of Latin America</td>
</tr>
<tr>
<td>GEOG16.346</td>
<td>Commonwealth of Independent States: Geography of U.S.S.R.</td>
</tr>
<tr>
<td>GEOG16.347</td>
<td>Geography of Middle East</td>
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### History

<table>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>HIST05.120</td>
<td>World History After 1500</td>
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<tr>
<td>HIST05.425</td>
<td>History of Feminism</td>
</tr>
</tbody>
</table>

### Interdisciplinary

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>AFST11.104</td>
<td>Introduction to African American Studies</td>
</tr>
<tr>
<td>INTR01.120</td>
<td>Biology, History and Human Societies</td>
</tr>
<tr>
<td>INTR01.140</td>
<td>Diverse Approaches to Environment Lit (RS, LIT)</td>
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### Law and Justice

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>LAWJ05.401</td>
<td>Law and Human Rights</td>
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</table>

### Management of Management and Entrepreneurship

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MGT06.330^</td>
<td>Managing International Business</td>
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</table>

### Marketing and Business Information Systems

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MKT09.379^</td>
<td>International Marketing</td>
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### Music

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>MUSG06.115</td>
<td>Growth and Development of Jazz (ACE)</td>
</tr>
<tr>
<td>MUSG06.220</td>
<td>Singing Music of African-Americans</td>
</tr>
<tr>
<td>MUSG06.447</td>
<td>Music in World Cultures: Asia and Oceania (ACE)</td>
</tr>
<tr>
<td>MUSG06.448</td>
<td>Music in World Cultures: Africa India, Near and Middle East (ACE)</td>
</tr>
</tbody>
</table>

### Philosophy

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PHIL09.120</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL09.121^</td>
<td>Introduction to Philosophy</td>
</tr>
<tr>
<td>PHIL09.211</td>
<td>World Philosophy I</td>
</tr>
<tr>
<td>PHIL09.213</td>
<td>World Philosophy II</td>
</tr>
<tr>
<td>PHIL09.328</td>
<td>Philosophy and Gender</td>
</tr>
<tr>
<td>PHIL09.330</td>
<td>Asian Thought</td>
</tr>
<tr>
<td>PHIL09.368</td>
<td>Philosophy of Science</td>
</tr>
<tr>
<td>PHIL09.369</td>
<td>Philosophy of Science</td>
</tr>
<tr>
<td>PHIL09.392</td>
<td>Contemporary Moral Problems</td>
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</table>

### Political Science

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>POSC07.100</td>
<td>Introduction to Government Politics</td>
</tr>
<tr>
<td>POSC07.230</td>
<td>Comparative Political Systems</td>
</tr>
<tr>
<td>POSC07.321</td>
<td>Contemporary World Problems</td>
</tr>
</tbody>
</table>

### Psychology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>PSY01.105^</td>
<td>Psychology of Ethnic Identity and Community in America</td>
</tr>
<tr>
<td>PSY01.200^</td>
<td>Psychology of Women &amp; Cultural Exp.</td>
</tr>
<tr>
<td>PSY01.235^</td>
<td>African American Psychology</td>
</tr>
<tr>
<td>PSY01.310^</td>
<td>Psychology of Racism &amp; Ethnocentrism</td>
</tr>
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### Radio, TV and Film

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>RTF03.294</td>
<td>Contemporary International Cinema</td>
</tr>
</tbody>
</table>

### Religion

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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</thead>
<tbody>
<tr>
<td>REL01.200</td>
<td>Religions of the World</td>
</tr>
<tr>
<td>REL01.210</td>
<td>Religion in America</td>
</tr>
<tr>
<td>PHRE11.330</td>
<td>Introduction to Buddhism</td>
</tr>
<tr>
<td>REL01.301</td>
<td>Introduction to Judaism</td>
</tr>
<tr>
<td>REL01.320</td>
<td>Introduction to Christianity</td>
</tr>
<tr>
<td>REL01.230</td>
<td>Religions of Asia</td>
</tr>
<tr>
<td>PHRE11.330</td>
<td>Introduction to Daoism</td>
</tr>
</tbody>
</table>

### Sociology and Anthropology

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>SOC08.220</td>
<td>The Family</td>
</tr>
</tbody>
</table>
### Rowan Experience Course Listing

**Public Speaking Courses (PS)**

*Note:* Currently, CMS 04.205 Public Speaking is typically included in the Communication Area of Study under General Education and ENG 01.202 Sophomore Engineering Clinic meets a major requirement for students majoring in Civil, Chemical, Electrical and Computer, and Mechanical Engineering.

<table>
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<tr>
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<th>Course Title</th>
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<tr>
<td>CMS04.205</td>
<td>Public Speaking</td>
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**Engineering**

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<tbody>
<tr>
<td>ENGR01.202</td>
<td>Sophomore Engineering Clinic</td>
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</table>

**Rowan Seminar Courses (RS)**

Rowan Seminar courses are designed to enhance the first-year experience for freshmen at the university. Because the primary goal of Rowan Seminar is to ensure a smooth transition to the college environment from high school, this requirement is waived for transfer students who already have enough college experience to enter with Sophomore, Junior or Senior standing. Selected sections of introductory courses within majors as well as general education courses may be designated as Rowan Seminars. In addition, courses designed specifically to serve as Rowan Seminars are:

**Interdisciplinary**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>INTR01.132</td>
<td>Biology, History and The Fate of Human Societies</td>
</tr>
<tr>
<td>INTR01.138</td>
<td>Issues in Sustainable Development</td>
</tr>
<tr>
<td>INTR01.140</td>
<td>Diverse Approaches to Environmental Lit (LIT, M/G)</td>
</tr>
<tr>
<td>INTR01.144</td>
<td>Human Ecology: An Evolutionary Approach</td>
</tr>
<tr>
<td>INTR01.148</td>
<td>Environmental Ethics: Through the Lens of Diversity</td>
</tr>
<tr>
<td>INTR01.142</td>
<td>Three Generations of Family Life: Diversity and Democracy through Family</td>
</tr>
<tr>
<td>INTR01.146</td>
<td>Identity, Culture, and Democracy: Being An American</td>
</tr>
<tr>
<td>INTR01.152</td>
<td>Beyond Face Value: Critical Analysis of Texts and Image (ACE)</td>
</tr>
<tr>
<td>INTR01.154</td>
<td>Emotions in Organizations</td>
</tr>
<tr>
<td>INTR01.158</td>
<td>From Nancy Drew to Lara Croft-Historical and Critical Dimensions of Female Detective Genre</td>
</tr>
<tr>
<td>INTR01.160</td>
<td>Growing Up Female in 20th Century America</td>
</tr>
<tr>
<td>INTR01.162</td>
<td>The Leadership of Ideas</td>
</tr>
<tr>
<td>INTR01.166</td>
<td>Rhetoric of Music (ACE)</td>
</tr>
<tr>
<td>INTR01.168</td>
<td>What’s Wrong With Normal?</td>
</tr>
<tr>
<td>INTR01.170</td>
<td>Law and Order</td>
</tr>
<tr>
<td>INTR01.172</td>
<td>Songs of Praise/Protest (ACE)</td>
</tr>
<tr>
<td>INTR01.176</td>
<td>Historical Aesthetics of Suffering</td>
</tr>
<tr>
<td>INTR01.178</td>
<td>In Search for Democracy: The Quest for Civil Liberties</td>
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**Writing Intensive Courses (WI)**

The following courses satisfy the requirement of one writing intensive course. The Writing Intensive requirement MUST be completed at Rowan University. The student has to have completed College Composition I and II before enrolling in any course designated as WI.

**Art**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>ARH503.252</td>
<td>Concepts in Art: Criticism</td>
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**Biological Sciences**

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<th>Course Title</th>
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<tr>
<td>BIOL01.440</td>
<td>Special Topics in Biological Sciences</td>
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**Chemistry and BioChemistry**

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<th>Course Code</th>
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<tr>
<td>CHEM07.464</td>
<td>Advanced Organic Chemistry I</td>
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</table>

**Communication Studies**

<table>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
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<tbody>
<tr>
<td>CMS04.211</td>
<td>Mass Media and Their Influence (WI)</td>
</tr>
<tr>
<td>Course Code</td>
<td>Title</td>
</tr>
<tr>
<td>------------</td>
<td>--------------------------------------------</td>
</tr>
<tr>
<td>CMS04.241</td>
<td>Small Group Communication</td>
</tr>
<tr>
<td>CMS04.226*</td>
<td>Semantics</td>
</tr>
<tr>
<td>CMS04.450*</td>
<td>Seminar in Communication Studies</td>
</tr>
<tr>
<td>CS04.102</td>
<td>Software Engineering I (WI)</td>
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<tr>
<td>ECON04.492*</td>
<td>Seminar in Economics</td>
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<tr>
<td>ENGR01.101</td>
<td>Freshman Engineering Clinic I</td>
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<tr>
<td>ENGR01.402*</td>
<td>Senior Engineering Clinic II (WI)</td>
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<tr>
<td>ENGL02.393*</td>
<td>English Seminar I</td>
</tr>
<tr>
<td>ENGL02.394*</td>
<td>English Seminar II</td>
</tr>
<tr>
<td>SPAN05.409*</td>
<td>Advanced Spanish Grammar and Composition</td>
</tr>
<tr>
<td>GEOG16.490*</td>
<td>Research Seminar in Geography</td>
</tr>
<tr>
<td>HIST05.306</td>
<td>Introduction to Historical Methods</td>
</tr>
<tr>
<td>INTR01.266*</td>
<td>Computers and Society</td>
</tr>
<tr>
<td>LAWJ05.370</td>
<td>Theories of Crime and Criminality</td>
</tr>
<tr>
<td>LAWJ05.469</td>
<td>Seminar in Law/Justice</td>
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<tr>
<td>AMST13.402*</td>
<td>Senior Seminar in American Studies</td>
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<td>MGT06.309*</td>
<td>Organizational Behavior</td>
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<td>HRM08.337*</td>
<td>Legal Aspects of Human Resource Management</td>
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<tr>
<td>MIS02.333</td>
<td>E-Business: I.S. Perspective</td>
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<tr>
<td>MKT09.384*</td>
<td>Research Methods in Marketing</td>
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<tr>
<td>MATH01.498*</td>
<td>Mathematics Seminar</td>
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<tr>
<td>PHILO9.121*</td>
<td>Introduction to Philosophy</td>
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<tr>
<td>PHILO9.211</td>
<td>World Philosophy I</td>
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<tr>
<td>PHILO9.213</td>
<td>World Philosophy II</td>
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<tr>
<td>PHILO9.225*</td>
<td>Philosophy of Mind</td>
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<tr>
<td>PHILO9.244*</td>
<td>Philosophy and Society (LIT)</td>
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<tr>
<td>PHILO9.351*</td>
<td>Introduction to Ethics (LIT)</td>
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<tr>
<td>PHILO9.311*</td>
<td>Aesthetics (LIT)</td>
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<td>PHILO9.328</td>
<td>Philosophy and Gender</td>
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<td>PHILO9.341</td>
<td>Biomedical Ethics</td>
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<td>PHILO9.346</td>
<td>Feminist Ethics</td>
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<tr>
<td>PHILO9.369*</td>
<td>Philosophy of Science</td>
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<tr>
<td>PHILO9.393*</td>
<td>Contemporary Moral Problems</td>
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<tr>
<td>POSC07.303</td>
<td>Campaigns, Political Parties and Interest Groups</td>
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<tr>
<td>POSC07.489*</td>
<td>Seminar in Political Science</td>
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<td>PSY01.420*</td>
<td>Advanced Research In Psychology</td>
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<tr>
<td>ADV04.434*</td>
<td>Advertising Campaigns</td>
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<tr>
<td>PRO6.353*</td>
<td>Case Studies in Public Relations</td>
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<tr>
<td>PRO6.454*</td>
<td>Public Relations Planning</td>
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<tr>
<td>RTF03.433*</td>
<td>TV Program Packaging</td>
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<tr>
<td>READ30.421</td>
<td>School Reading Problems</td>
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</table>
Sociology and Anthropology

SOCo8.325* Deviant Behavior and Social Control
SOCo8.326* Socialization of the Child Through Adolescence
SOCo8.399* Sociology of the Holocaust
SOCo8.494* Field Experience Seminar in Sociology

Theatre and Dance

THD07.440 Contemporary World Theatre (LIT, ACE)

Writing Arts

WA01.304* Writing with Style
WA01.400* Writing for the Workplace
WA01.408 Writing as Managers
WA01.301* Writing, Research and Technology
WA01.401* The Writer's Mind
Course Descriptions

ACC 03200: Accounting Mentorship 0 s.h.
Prerequisites: Any undergraduate or graduate business major or permission from instructor.
The Accounting Mentorship Program links College of Business students who are interested in an accounting career with working professionals in the field of accounting. Students enrolling in this course are matched with a mentor who is presently working in an area of accounting in which the student expresses an interest, (such as public accounting, corporate accounting, tax, government, forensic). Students and mentors communicate via email, phone and in-person meetings, in order for students to obtain a better understanding of the challenges and rewards of Accounting as a profession from those presently working as accounting practitioners. This enhanced understanding should help solidify the choice of profession and allow students to begin developing professional networking skills.

ACC 03210: Principles Of Accounting I 3 s.h.
This course includes accounting theory and practice in the analysis of business transactions and the recording of business data; complete accounting cycle; interpretation of financial data for sole proprietorship, partnerships, corporations and public agencies.

ACC 03211: Principles Of Accounting II 3 s.h.
Prerequisites: ACC 03210
This course includes accounting theory and practice applied to corporations and public agencies; budgeting and estimating; analysis and comparison of cost and financial data.

ACC 03300: Supervised Internship In Accounting 3 s.h.
Prerequisites: ACC 03210 and 57 Credits Required
This course includes accounting field experience in government, industry or non-profit organizations. Interns are given assignments that prepare them for productive employment upon graduation. The learning process is monitored by an Accounting faculty member.

ACC 03310: Intermediate Accounting I 3 s.h.
Prerequisites: ACC 03210 and ACC 03211 minimum grade of C in both courses, and 57 Earned Hours Required
This course includes a review of the accounting process, the preparation of each of the financial statements - i.e., Statement of Financial Position, Statement of Income, Statement of Changes in Owner’s Equity, and Statement of Cash Flows - and the specific principles related to the accounting for current assets, current liabilities and long-term liabilities. A special section is devoted to the time value of money as related to accounting.

ACC 03311: Intermediate Accounting II 3 s.h.
Prerequisites: ACC 03310 with minimum grade of C- and 57 Credits Required
This course includes the accounting principles related to investments, operating assets, current and long-term liabilities and owner’s equity accounts. In addition, special topics cover accounting for leases, pensions and current value accounting.

ACC 03316: Concepts In Federal Taxation 3 s.h.
Prerequisites: ACC 03210 and 57 Credits Required
This course presents an overview of the Federal Tax System in a conceptual framework with emphasis on transactions common to all entities. It exposes students to taxation and its interrelationship between individuals, corporations, partnerships and other business entities. Students will review recent tax legislation and will gain experience in research and preparation of tax returns in a manual and computerized environment.

ACC 03320: Accounting Information Systems 3 s.h.
Prerequisites: ACC 03310 and (MIS 02234 or MIS 02210)
The course is designed to give the accounting student an introduction to the concepts and tools related to the use, development, and adaptation of computer-based accounting information systems. The course will emphasize information system analysis and design, internal controls, and technology of accounting systems. Students will gain hands-on experience with a commercial accounting software system throughout the course.

ACC 03326: Cost Accounting 3 s.h.
Prerequisites: ACC 03210 and ACC 03211 minimum grade of C in both courses, and 57 hours required
This course deals with techniques and systems used for internal control. It views the cost accounting system as the connecting link between planning and control functions of management. Topics include: cost accumulation procedures; job order and process cost accounting cycles; variance analysis; maser and flexible budgets; cost-volume-profit analysis; and transfer pricing.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC 03328</td>
<td>Entrepreneurial Accounting</td>
<td>3 s.h.</td>
<td>FIN 04300</td>
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<td></td>
<td>This course provides students with the</td>
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<td></td>
<td>accounting and financial tools essential</td>
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<td>for effective decision-making in starting</td>
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<td>and managing small to mid-sized</td>
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<td>businesses. It focuses on the</td>
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<td>measurement and evaluation of</td>
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<td>financial performance, effective</td>
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<td>cash management techniques, internal</td>
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<td>control concepts, good</td>
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<td>decision-making for growth and</td>
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<td>long-term solvency of the business. A</td>
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<td>hands-on, project based learning</td>
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<td>experience is emphasized to integrate</td>
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<td>the various financial tools and to</td>
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<td>assist student in applying what they</td>
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<td>ACC 03330</td>
<td>Selected Topics In Accounting</td>
<td>3 s.h.</td>
<td>ACC 03310</td>
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<td>Students will investigate new areas</td>
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<td>and developments in theory, research,</td>
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<td>and practice of accounting. Specialized</td>
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<td>topics will vary each semester. The</td>
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<td>topics will be determined by the</td>
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<td>department and the instructor teaching</td>
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<td>the course. Course activities include</td>
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<td>in-depth study of selected topics, case</td>
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<td>analysis, and research.</td>
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<td>ACC 03405</td>
<td>Foundations Of Accounting</td>
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<td>This course presents an overview of</td>
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<td>accounting as an information system</td>
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<td>useful for decision making. It provides</td>
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<td>students with an understanding of the</td>
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<td>basic concepts of financial and</td>
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<td>managerial accounting from the</td>
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<td>perspective of a future user of</td>
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<td></td>
<td>accounting information.</td>
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<td>ACC 03410</td>
<td>Auditing</td>
<td>3 s.h.</td>
<td>ACC 03311 and STAT 02261</td>
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<td>This course introduces students to the</td>
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<td>basic concepts underlying audit and</td>
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<td>assurance services and to demonstrate</td>
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<td>how to apply the concepts to these</td>
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<td>services. It studies the framework of an</td>
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<td>audit which includes pre-planning,</td>
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<td>planning, evidence gathering,</td>
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<td>considering and/or auditing internal</td>
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<td>control, performing various audit tests,</td>
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<td>audit completion, rendering audit</td>
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<td>opinions via audit reports, and the use</td>
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<td>of statistics and audit software in the</td>
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<td>auditing process. The course also includes</td>
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<td>the application of auditing principles</td>
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<td>and procedures through the use of audit</td>
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<td>software.</td>
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<td>ACC 03416</td>
<td>Advanced Accounting</td>
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<td>ACC 03311</td>
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<td>This course covers concepts and</td>
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<td>accounting for business combinations,</td>
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<td>and specialized financial statement</td>
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<td>disclosures. It also covers the</td>
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<td>accounting for inter-company transfers,</td>
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<td>segment reporting, and interim reporting.</td>
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<td>It provides an overall review of</td>
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<td>generally accepted accounting principles</td>
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<td>in producing consolidated financial</td>
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<td>statements for the business and</td>
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<td>non-business organization.</td>
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<td>ACC 03425</td>
<td>International Accounting</td>
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<td>ACC 03311</td>
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<td>This course provides students with the</td>
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<td>critical role of foreign and international</td>
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<td>business perspectives and prepares the</td>
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<td>student to understand and compare between</td>
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<td>the two most commonly applied accounting</td>
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<td>standards in the world, U.S. GAAP and</td>
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<td>IFRS. Topics covered will include:</td>
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<td>IFRS, foreign currency transaction,</td>
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<td>analysis of foreign financial statements,</td>
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<td>international taxation, and transfer</td>
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<td>pricing.</td>
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<td>ACC 03428</td>
<td>Integrative Accounting Seminar</td>
<td>3 s.h.</td>
<td>ACC 03311 or ACC 02311</td>
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<td>This course provides an integrative</td>
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<td>experience in which students synthesize</td>
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<td>knowledge from the accounting content</td>
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<td>areas to interpret, evaluate, and</td>
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<td>analyze financial information in order</td>
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<td>to enhance planning and decision-making.</td>
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<td>The course uses case analyses to</td>
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<td>involve students in active rather than</td>
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<td>passive learning, and places emphasis on</td>
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<td>skills in analytical and critical</td>
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<td>thinking, technology, communication and</td>
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<td>teamwork. (Offered Spring Only)</td>
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<td>ACC 03430</td>
<td>Individual Taxation</td>
<td>3 s.h.</td>
<td>ACC 03311</td>
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<td>Surveys the tax structure of the United</td>
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<td>States, emphasizing the Internal Revenue</td>
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<td>code and regulations that affect federal</td>
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<td>income tax liabilities of individuals.</td>
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<td>Basic tax research and preparation skills</td>
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<td>are a consistent theme throughout the</td>
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<td>course.</td>
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<tr>
<td>ACC 03431</td>
<td>Taxation Of Business Entities</td>
<td>3 s.h.</td>
<td>ACC 03430 or ACC 03432 or ACC 03316</td>
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<td>An introductory course in the Federal</td>
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<td>Income Taxation of business transactions</td>
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<td>relating to corporations, partnerships,</td>
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<td>LLCs and estates and trusts. Students</td>
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<td>will explore tax policy issues, apply</td>
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<td>basic tax research to specific case</td>
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<td>problems, prepare common IRS forms and</td>
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<td>schedules, and develop skills necessary</td>
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<td>for effective tax planning and its impact</td>
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<td>on business decisions.</td>
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Course Descriptions

ACC 03432: Federal Taxation  
Prerequisite(s): ACC 03310  
This course introduces the principles of federal income tax as it relates to business transactions and decision making. Primary emphasis is on individual taxation with an overview of tax considerations and planning for business entities.

ACC 98300: Law For Accountants  
Prerequisites: MGT 98242 and 57 Credits Required  
This course includes the study of the legal aspects of sales, liability, secured transactions, commercial paper and consumer credit.

FIN 04300: Principles Of Finance  
Prerequisites: ACC 03211 and STAT 02260 and MATH 03125 or MATH 01130 and ECON 04101 and ECON 04102  
This course includes the following topics: financial goals; depreciation, taxation and cashflows; financing the firm via short-term, intermediate and long-term debt, and preferred and common stock; capital budgeting and leasing; dividend policy; business growth and contraction.

FIN 04327: Selected Topics In Finance  
Prerequisites: FIN 04300, Required Credits: 57  
Students will investigate new areas and developments in theory, research, and practice in finance. Specialized topics will vary each semester. The topics will be determined by the department and the instructor teaching the course. Course activities include in-depth study of selected topics, case analysis, and research.

FIN 04330: Finance Internship  
Prerequisites: FIN 04300  
This course concerns field experience in the finance discipline which includes commercial banking, investment banking, brokerage houses, corporations, government, and not-for-profit organizations. Trainees are given assignments that prepare them for productive employment upon graduation. The learning process is monitored by a Finance faculty member.

FIN 04350: Personal Financial Planning  
Prerequisite: FIN 04300  
Personal Financial Planning provides the framework and tools for preparing personal financial plans that serve as road maps for goal achievement. This course emphasizes the dynamics of the personal financial planning process by considering the impact of life changes - birth, marriage, divorce, job and career and death. This course will cover a wide variety of money management topics including budgeting, expenses, debt, saving, retirement, and insurance, among others.

FIN 04422: Financial Management I  
Prerequisites: FIN 04300 and STAT 02261 and completion of 90 semester hours as a Business Major  
An in-depth study of the selected financial management topics by using a case and problem-solving approach. The emphasis is on corporate asset management and investment decisions. Topics include risk and return analysis, cost of capital, capital budgeting decision methods, leasing, financial analysis and forecasting, and working capital management.

FIN 04423: Financial Management II  
Prerequisites: FIN 04422  
An in-depth study of selected financial management topics by using a case and problem-solving approach. The emphasis is on corporate financing decisions. Topics include capital structure decisions, dividend policy, long-term financing, bankruptcy, reorganization, liquidation, mergers, LBOs, divestitures, holding companies, and pension plan management.

FIN 04424: Seminar In Finance  
Having learned financial markets, financial management, and investment/portfolio analysis in previous finance courses, in this course, students will undertake integrative research on these subjects. This course will teach students the skills required to undertake independent research. They will select a topic, conduct a literature review, and collect and analyze data.

FIN 04425: Financial Derivatives  
Prerequisites: FIN 04431  
This course covers a comprehensive survey of the various financial instruments available in the financial markets followed by an in-depth study of practical use of the financial instruments in hedging financial risk. Hedging will be performed from the perspectives of a financial manager and an investor or an investor consultant. Topics include options, futures, swaps, and other hybrid securities and how these securities are used to hedge the risk in a firm or specific financial transaction.
FIN 04431: Investment/Portfolio Analysis
Prerequisites: FIN 04300 and STAT 02261
The basic decision-making processes for investment decisions are outlined in this course in terms of investors' needs and market opportunities, security market operations, security valuation, investment time, government and corporate securities company analysis and portfolio management.

FIN 04433: Financial Institutions And Markets
Prerequisites: FIN 04300
This course provides an overview of financial markets and institutions in the U.S. economy. It intends to equip students with a balanced introduction to the operations, mechanics, and structure of the U.S. financial system, emphasizing its institutions, markets, regulators and financial instruments. Another focus of the course is to analyze the major risks faced by financial institutions and the strategies for controlling and managing these risks.

FIN 04435: International Financial Management
Prerequisites: FIN 04300
This course studies financial management in the international environment. Topics include foreign exchange risk management, multinational working capital management, international portfolio investment, foreign direct investment, capital budgeting for the multinational corporation, political risk, international financing and international financial markets.

FIN 04436: Insurance And Risk Management
Prerequisites: FIN 04300 AND STAT 02261
Insurance and Risk Management is an advanced elective course for finance majors, and recommended for students who want to pursue careers in insurance and financial planning industries. The course combines the theoretical underpinnings of risk financing with practical applications and examples from business and individual perspectives. Topics include: risk in our society, insurance and risk, types of insurers and marketing systems, insurance company operations, financial operations of insurers, government regulation of insurance, fundamental legal principles, analysis of insurance contracts, life insurance, annuity and individual retirement accounts, health insurance, employee benefit, home insurance, auto insurance, commercial property insurance, enterprise risk management, use of capital market products for risk financing.

FIN 04438: Portfolio Management
Prerequisites: FIN 04431 and Senior standing
Portfolio Management is an advanced and elective course for finance majors and recommended for students who want to pursue careers in financial planning, asset management or the investment banking industry. The course combines theory of portfolio management with the practical process and issues that one will encounter when managing real money in the real world. Topics include formulating investment policy, recognizing risk and return characteristics of investment vehicles, developing asset allocation and security selection strategies using top down fundamental analysis, evaluating portfolio and manager performance relative to investment objectives and appropriate benchmarks. Investment tools, such as economic indicators, statistical analysis, and ratio comparison will be introduced in computer labs.

AFST 11104: Introduction To Africana Studies
This course will introduce students to the interdisciplinary, multicultural and international field of Africana Studies, from the perspective of the experiences and scholarly and creative contributions of Africans and African descendants to the making of the modern world. The primary focus in the course will be to explore how the experiences and contributions of African peoples have influenced historical and contemporary developments, addressed urgent societal issues, and helped to shape social consciousness, social activism and social change, within the African Diaspora and the global community.

AFST 11304: Africana Social Thought
Prerequisites: AFST 11104
This course engages students in an introductory overview of major ideas, theories, ideological debates, and social/political movements that have emerged in the African Diaspora to challenge national and global social, political, economic and other realities, and to produce a dynamic framework of historical and contemporary thought that have helped to shape social consciousness, social activism, and public policy.

AFST 11305: Research Methods In Africana Studies
Prerequisites: AFST 11104 and COMP 01112
This course is designed to develop students skills in applying and critically reviewing basic quantitative research methods. Topics will include analysis of descriptive, correlational and experimental studies, followed by an extensive presentation of the main qualitative research methods, including case studies, ethnographic studies, grounded theory research, life history studies, phenomenological studies, and participatory action research. Students will also learn data gathering methods such as observation, interviewing, and analysis of archival materials.
Course Descriptions

AFST 11310: Service Learning Seminar In Africana Studies 3 s.h.
Prerequisites: AFST 11104 and Permission of Instructor is also required
The proposed model for the Africana Studies Major at Rowan University requires that students participate in a three-credit service learning experience, accumulating 70-75 hours with an educational, social service, mental health, business, or cultural/civic group, institution or organization to explore community or institutional development initiatives which address issues that are local, regional, national and/or international in scope. The seminar will integrate classroom learning and community service through a collaborative partnership involving each student, the seminar leader, and a leader within the community organization. Students will spend approximately one day a week at their internship site, and will return to the classroom to share their experiences. Students interested in enrolling in the Service Learning Internship must interview with the course instructor one semester prior to the semester in which they will enroll in the course.

AFST 11450: Senior Seminar In Africana Studies 3 s.h.
Prerequisites: AFST 11104, AFST 11304, and AFST 11305 or an equivalent methods course
The senior seminar in Africana Studies is designed as the culmination of students’ experiences in the various aspects of the Africana Studies major. The course emphasizes and reinforces elements of the research and service components of the Africana Studies major, while exploring original themes or focusing on more extensive and intensive study of themes covered in survey courses. It will also provide for faculty and students an intellectual discussion community in which to posit, examine, and disseminate cutting-edge scholarship and creative work, including interdisciplinary approaches to topics in the study of peoples of African descent. Students will use critical thinking and analytical skills in understanding and interpreting relevant literature, to develop a proposal for research, and to produce a substantial written research project report, using either qualitative or quantitative research methods or an integration of both.

AMST 13201: Introduction To American Studies 3 s.h.
Prerequisite: COMP 01112
This is an interdisciplinary course intended to introduce the methods and themes central to American Studies. The course describes the typical methods of text, social, historical, and cultural analyses as they apply to the study of American society and culture.

AMST 13400: Independent Study In American Studies 3 to 9 s.h.
Students will engage in an independent study project under the supervision of a faculty member. Topics will vary.

AMST 13402: Senior Seminar In American Studies - Wi 3 s.h.
Prerequisites: AMST 13201 and COMP 01112
This seminar provides the opportunity for students to engage in their own research into American Studies and to significantly advance their own scholarly development in the field. Students interact with their instructor and the other students in the seminar in the development and completion of individual projects. The central theme will vary by semester. Topics may include: ethnicity, popular religion, slavery in North America, World War II at home and abroad.

ARHS 03103: Art History Survey I 3 s.h.
This course traces the history of painting, sculpture, architecture, and crafts in the West from the Old Stone Age up through the Middle Ages.

ARHS 03104: Art History Survey II 3 s.h.
(No prerequisites but students are urged to take Art History Survey I prior to taking Art History Survey II) This course presents the history of the visual arts in the West from the Renaissance to the early eighteenth century.

ARHS 03130: Art Appreciation 3 s.h.
This general art appreciation course deals specifically with outstanding examples drawn from such diverse areas as product design, architecture, interior design, drawing, painting, sculpture, printmaking and the creative crafts, taken from various time periods in the history of the human family and from different places the world over.

ARHS 03205: Art History Survey III 3 s.h.
This course presents the history of the visual arts in the West from the mid-eighteenth century to modern times. There are no prerequisites but students are urged to take Art History Survey I and II prior to taking Art History Survey III.

ARHS 03220: Modern Art 3 s.h.
This course introduces significant creative visual art achievements of the nineteenth and twentieth centuries. Specific areas of coverage include impressionism, post-impressionism, fauvism, expressionism, cubism, non-representational directions, surrealism, regionalism, abstraction, pop art and hyperrealism.
ARHS 03230: SURVEY WOMEN ARTISTS 3 s.h.
An introduction to the work of many female artists who form an important part of the history of art. In order to break down stereotypes, each artist is discussed within the context of her society and with respect to her role in the art world. Rather than canonizing a group of "great women artists," the course is intended to return female artists to their rightful place in history through the study of individuals whose accomplishments demonstrate the tremendous effect women have had on the visual arts. Since a single semester is too brief for an exhaustive study of women's contributions, this course focuses on a selection of European and American artists from the sixteenth through twenty-first centuries.

ARHS 03231: Survey Of Asian Art 3 s.h.
This course provides an introduction to the artistic traditions of China, Japan, India, Korea, and Southeast Asia with an emphasis on historical, religious and social context. Focus on the arts of Buddhism, Hinduism, and other religious and cultural influences on the visual arts.

ARHS 03241: History Of Photography 3 s.h.
This course will present the 175 year history of photography in a comprehensive and detailed manner. Students will gain an overview of the history of photography from its inception to present day. Emphasis will be placed on significant movements, concepts and individuals relevant to the evolution of photography. Field trips to gallery and museums where photography can be viewed will be an integral part of the course. Class sessions will consist of digital presentations of images and concepts from the history of photography and will be supported by the required text. Classes will be augmented by readings and field trips to galleries and museums.

ARHS 03252: Concepts In Art: Criticism - Wi 3 s.h.
This course is designed to help the students identify and employ methods of examining art works which allow them to speak and write thoughtful judgments about the art in their world.

ARHS 03310: History Of American Art 3 s.h.
A minimum of at least 30 s.h. completed.
This course provides students with an overview of the development of painting, sculpture and architecture in America from colonial times to the 20th century.

ARHS 03340: Survey Of Women Artists 3 s.h.
An introduction to the work of many female artists who form an important part of the history of art. In order to break down stereotypes, each artist is discussed within the context of her society and with respect to her role in the art world. Rather than canonizing a group of "great women artists," the course is intended to return female artists to their rightful place in history through the study of individuals whose accomplishments demonstrate the tremendous effect women have had on the visual arts. Since a single semester is too brief for an exhaustive study of women's contributions, this course focuses on a selection of European and American artists from the sixteenth through twenty-first centuries.

ARHS 03350: History Of Graphic Design 3 s.h.
Prerequisite: ART 09343
Graphic design from the 19th century to the present, with emphasis on European and American sources and some examination of world design issues relevant to contemporary design practice. Discussion of events, ideas, movements, designers and other individuals with historical significance and influence. Content topics will consider typography, graphic translation, publication, identity and design systems, visual propaganda, and the effect of technology in design production and creative output. Students without the prerequisite may enroll with instructor's permission.

ARHS 03420: Art Since 1945 3 s.h.
Prerequisite: ARHS 03220
This course is a seminar, which deals with the social, political and aesthetic issues that are significant to the contemporary art world. For art majors and non-art majors.

ARHS 03425: Special Problems In Art History 3 s.h.
Prerequisites: ARHS 03103 or ARHS 03104 or ARHS 03205
Special Problems in Art History is an intensive investigation of a specific movement, style, medium, or major artist. Content changes each time the course is offered. Check the Schedule of Classes to determine specific area of study.

ART 02100: Representational Drawing 3 s.h.
This course presents the basic representational skills and knowledge for effective drawing. It covers the elements and fundamentals of perspective, composition, anatomy, light and shade and rendering.
ART 02105: Color And Design-Two Dimensional 3 s.h.
An introductory lecture/studio course dealing with compositional strategies, to teach students to manipulate elements in dealing with solutions to the problems of aesthetics, function, and balance and the relationship between form and content. In the studio student’s work on selected conceptual problems in both black and white and color in various materials.

ART 02110: Figure Drawing 3 s.h.
This course consists of experimenting, exploring and improvising with techniques suitable for drawing representation of such visual forms as figure and still-life. It also covers nonrepresentational approaches. For art majors only.

ART 02200: Expressive Drawing 3 s.h.
Prerequisites: ART 02100
This course will consist of experimentation, exploring, and improvisation with techniques suitable for representation of visual forms such as still-life, landscape, and figures as well as non-representational approaches.

ART 02207: Color And Design-Three Dimensional 3 s.h.
Drawing on the experiences gained in the 2D design and color problems, this course teaches students to establish visual excitement in a 3D format. Students deal with relationships of organic and natural structures and mechanical and geometric forms, as well as methods for relating them to one another.

ART 02211: Intermediate Drawing IV 3 s.h.
Prerequisites: ART 02200
These studios are a continuation of fundamental drawing. They will include figure/life drawing, composition, technique, and the analysis of human form, as well as other drawing problems.

ART 02220: Introduction To Painting 3 s.h.
Prerequisites: ART 02222
This course introduces students to basic concepts, techniques, materials and procedures of painting.

ART 02222: Studio Core Portfolio Review 0 s.h.
After completing the Foundation Studio Core, each student will present a portfolio of 15 works executed in design and drawing. This portfolio will include at least 8 drawings and at least 5 designs including no less than two three-dimensional projects. Students will receive an evaluation of their portfolios, which is required before progressing on to the studio specialization. Students sign up for this review the semester they are enrolling in their final studio courses of the Foundation Core.

ART 02239: Introduction To Glass Working 3 s.h.
Prerequisite: ART 02222
This introductory studio course is designed to teach students to use glass as an expressive art medium. It includes studio work to develop skills and knowledge, as well as discussions and lectures to develop an understanding of both historical and contemporary approaches to the medium. Students explore both sculptural and utilitarian forms in glass. Techniques covered include slumping, fusing, kiln casting, lampworking and patte-de-verre.

ART 02240: Introduction To Sculpture 3 s.h.
Prerequisites: ART 02222
This course involves studio directed projects in three-dimensional problem solving. It introduces a variety of basic sculptural techniques using traditional sculptural materials. Areas covered are casting, woodworking and modeling.

ART 02245: Intermediate Figure Sculpture 3 s.h.
Prerequisites: ART 02222
This studio emphasizes the analytical and expressive potential of the human figure in sculpture by working in a variety of techniques and methods, including modeling in clay from the live figure. Techniques of moldmaking and casting are an integral part of the course.

ART 02260: Introduction To Printmaking 3 s.h.
Prerequisites: ART 02222
The introductory course surveys techniques used in creating intaglio and relief prints. Demonstrated techniques include etching, drypoint, woodcut, lino cut and other press and hand-printing processes.
ART 02300: Workshop In Art 3 s.h.
This course explores various studio experiences and techniques. The area(s) to be covered will be identified prior to registration each semester. For non-art majors only.

ART 02301: Intermediate Sculpture 3 s.h.
Prerequisites: ART 02240
These sculpture studios examine projects in three-dimensional form. Students work closely with the instructors on problems of their own choosing. Students may work in a variety of materials and explore major trends in contemporary sculpture.

ART 02304: Intermediate Glass Working 3 s.h.
Prerequisites: ART 02240
This intermediate studio course will further explore issues and techniques learned in Glass-Working I. Students will have the opportunity to study in depth methods of forming glass that allow individual artistic expression and personal style to be developed. Projects will be assigned according to the techniques and processes in which students are interested. Repeatable 3 times

ART 02315: Intermediate Painting 3 s.h.
Prerequisite: ART 02222
These studios continue the study of painting, emphasizing the expressive and physical qualities of media, pictorial composition and color theory.

ART 02317: Intermediate Printmaking 3 s.h.
Prerequisite: ART 02260
These studios allow students to pursue further study in relief and intaglio processes both traditional and experimental approaches. Also the possibilities of photography as it relates to printmaking in a variety of multi-block and multi-plate color processes will be investigated.

ART 02318: Special Topics In Printmaking 3 s.h.
Prerequisites: ART 02222 and ART 02260
This course focuses on a particular topic within this studio specialty and offers an in-depth study of the concepts and techniques used by artists who base their work on a particular genre. The topical content may vary each time the course is offered.

ART 02325: Intermediate Figure/Life Painting And Drawing 3 s.h.
Prerequisites: ART 02220 and ART 02222
Students paint from life and costumed figures to strengthen their understanding of figure articulation, action, proportion and anatomical construction.

ART 02327: Aquarelle (Intermediate Level) 3 s.h.
Prerequisites: ART 02222
This course explores the techniques of all water-soluble media (aquarelle). It investigates and practices such processes and media as transparent watercolor, tempera, gouache and acrylic in water.

ART 02370: Selected Topics In Glass-Working 3 s.h.
Prerequisites: ART 02222
Selected topics to be presented may include lamp-working, stained glass, painting and enameling, history of glass-working and, when facilities can be scheduled with Wheaton Village, glassblowing and/or glass casting.

ART 02400: Independent Study .5 to 9 s.h.
Intended primarily for students working at an advanced level in one of the regular studio areas, this course allows students to complete various projects. Students must show sufficient maturity and experience to assure successful completion of the proposed project.

ART 02401: Advanced Sculpture 3 s.h.
Prerequisite: ART 02301
These studios explore advanced problems in sculpture. Students work in consultation with the instructor.
ART 02404: Advanced Glass Working  
Prerequisites: ART 02403  
This advanced studio course will utilize the techniques of Patte-de-verre, slumping, fusing, kiln casting and lamp working. Students will work on projects agreed upon in a contract with the instructor. By this level, students are expected to be operating at an advanced level of technique and aesthetic content. Repeatable 3 times

ART 02414: Advanced Painting  
Prerequisite: ART 02315  
These studios provide advanced study emphasizing individual conception of the painted image, composition and design in both representational or abstract painting.

ART 02430: Advanced Printmaking  
Prerequisite: ART 02317  
In these studios, students continue to explore printmaking, developing problems that emphasize individual development and discovery. These studios will be individualized to meet the requirements of advanced students

ART 09110: Experiencing Art  
This course provides art experiences as processes which, in a workshop environment, are developed by students into expressionial plastic forms. This course introduces work with the tools, materials, processes and purposes of art. Materials used may include clay, paint, wood, plastics, metals and fabric. For non-art majors only.

ART 09200: Theory And Analysis Of Art Education  
This course provides students with an historical knowledge base of the theories, philosophies and persons that have impacted the teaching of art in public schools. Assignments will actively engage learners in developing their own teaching philosophies as they examine current theoretical and pedagogical research, and the national and state curriculum standards for teachers and students of the visual arts.

ART 09201: Community Art Education For Elementary Through Middle Grades  
Prerequisites: EDUC 20220 Corequisites: SMED 01350 AND SECD 03330  
This course introduces students to community visual arts programming and involves them in the practice of organizing for art instruction and the teaching of elementary and middle school aged children who are enrolled in the Saturday Morning Art program (smART).

ART 09202: Community Art Education For Secondary Grades  
Prerequisites: SMED 01350 AND SECD 03330 Corequisites: SMED 31360 AND SECD 03332  
This course introduces students to community visual arts programming and involves them in the practice of organizing for art instruction and the teaching of adolescents whose schools are partnering with the Saturday Morning Art (smART) program.

ART 09210: Introduction To Metals And Jewelry  
Prerequisites: ART 02222  
This course introduces metal fabrication techniques including piercing, cold connecting, forming, texturing, soldering, and finishing of non-ferrous metals in order to create small-scale metalwork and jewelry. Technical skills and craftsmanship will be stressed while the students explore ideas and concepts through this three-dimensional medium.

ART 09212: Jewelry And Metal Casting  
Prerequisites: ART 02222  
This course deals with various metal casting processes, using a variety of metals. The course provides an in-depth learning experience through intensive independent work.

ART 09225: Introduction To Puppetry I  
This course provides an overview of the field of puppetry, including history, construction, playwriting and performance. It includes studio work.

ART 09226: Intermediate Puppetry II - Puppetry In Education  
This course is devoted to structuring puppet experiences in the classroom and teaching with puppets.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ART 09228:</td>
<td>Introduction To Illustration</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> ART 02222</td>
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<tr>
<td>This course provides students with an introductory experience with illustration. Students will work with basic visual, technical and expressive problems in preparation for further study in illustration.</td>
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| ART 09240:  | Introduction To Ceramics                          | 3 s.h.  |
| **Prerequisites:** ART 02222                     |         |
| An introductory studio/lecture course designed to teach students to use clay as an expressive art medium. It includes studio work to develop technical skills and knowledge along with discussions and lectures to develop an understanding of both historical and contemporary approaches. Students explore both utilitarian and sculptural forms in clay. |

| ART 09251:  | Anatomy for the Artist                            | 4 s.h.  |
| **Prerequisite(s):** ART 02222                   |         |
| This course is designed to strengthen the students understanding and use of figure anatomy within their work and focuses on skill development and the logic behind the construction of the body form. Drawing methodology includes: technical illustration (accuracy/proportion), drawing communication, simplification and translation of drawn information. The student will learn a level of realism and stylization of complex information within the body form as it relates to observational drawing. This course will provide the student the opportunity to interpret anatomy knowledge by working directly from the model and human cadaver lab at the medical school. Study in this area is designed to provide the student with a good grasp of skeletal and muscular anatomy as it strongly relates to drawing the figure and its proportions. |

| ART 09252:  | Information Visualization: Line, Color and Form   | 4 s.h.  |
| **Prerequisite(s):** ART 02222 and ART 09308     |         |
| This course serves as a comprehensive investigation in line, color, and form to communicate simplistic to complex informational systems. Both traditional forms of media (graphite, pen/ink, charcoal pencil etc.) and digital forms of line (vector ink, vector paint, and raster ink, raster paint) will be utilized to explore subjects in plant science, animal science, general biology and micro and macro processes within human systems. The course will focus on the integration of traditional and digital color theory, as it relates to symbolic scientific colors and realistic observational values of subjects. Through research, planning, and the application of medical and scientific knowledge, students will use color, line and design elements to effectively communicate conceptual and observational problems. |

| ART 09253:  | Introduction to Biomedical Digital 3D Modeling & Visualization | 4 s.h.  |
| **Prerequisite(s):** ART 02222                   |         |
| An aesthetics based course that communicates didactic content. This course is designed to cover concepts in digital 3D organic and device model construction, whereby the virtual models designed are rendered and composited for 2D illustration purposes to solve specific visual communication problems for educational and instructional purposes. The subject matter within the Specialization in Biomedical Art and Visualization reflects the subject matter of science and medicine. Students in broader areas of art (sculpture, illustration, painting, etc.) will be able to focus on specific subjects relevant to their artistic goals using the 3D methods and techniques. |

| ART 09301:  | Digital Media And Techniques                      | 3 s.h.  |
| This foundation course introduces students to digital media in solving art and design problems. Through demonstrations and hands-on experience, students will explore various computer software applications related to the fine arts and graphic design. |

| ART 09308:  | Color Theory                                      | 3 s.h.  |
| Through an investigation of classification systems and theories, color theory students will construct color relationships for various applications with paint and digital media. Must be enrolled in one of the following majors: Art: Education, Art, Studio Art, or Studio Art - Graphic Design Specialization. |

| ART 09310:  | Intermediate Puppetry III                         | 3 s.h.  |
| This course is devoted to structuring puppet experiences in the classroom and teaching with puppets. |

| ART 09311:  | Intermediate Metals And Jewelry                    | 3 s.h.  |
| **Prerequisites:** ART 02222 and ART 09210       |         |
| These courses have a rotating topic of emphasis and build on the techniques and process learned in Introduction to Metals/Jewelry. The semester long topics include forming, vitreous enameling, and small-scale casting. Students will apply these techniques to create unique concept driven jewelry and metalwork. Contact the professor to inquire about the topic of emphasis for the semester. |
ART 09313: Intermediate Puppetry IV  
This course is devoted to structuring puppet experiences in the classroom and teaching with puppets.

ART 09314: Special Topics In Metals/Jewelry  
**Prerequisites: ART 02222 AND ART 09210**  
This course focuses on a particular topic within this studio specialty and offers an in-depth study of the concepts and techniques used by artists who base their work on a particular genre. The topical content may vary each time the course is offered.

ART 09316: Intermediate Illustration  
**Prerequisite: ART 09228**  
These courses provide in-depth study emphasizing the dynamics of the image and the symbolic and expressive use of visual language. Draftsmanship, and the application of technique and materials are studied and reviewed in periodic critiques of work in progress. Students will also continue work on developing a professional portfolio.

ART 09343: Introduction To Graphic Design I  
**Prerequisites: ART 02105 and ART 02100**  
Introduction and orientation to concepts and skills in visual communication. Content is focused on fundamentals of graphic translation, typography, and visual organization. Students will develop visual vocabulary, problem solving skills, and conceptual thinking abilities through creative exploration of theory, history, practice, and technology.

ART 09344: Intermediate Graphic Design II: Typography  
**Prerequisite: ART 09343**  
The emphasis of this course is typography as a medium of visual communication. Focusing on principles of typographic composition, structure, and hierarchy, students will explore and analyze relationships between visual and verbal language. Content includes typographic history, technical details of type specification and terminology, and methods of hand-generation and digital manipulation of type.

ART 09346: Computer Aided Design (Cad): 3d Modeling For The Artist/Designer  
**Prerequisites: ART 02222**  
This course is concerned with the visualization and creation of 3D computer-generated models and their applications in the art and design world. Students will be instructed in the principles of 3D modeling using computer modeling software and will be introduced to a variety of 3D model applications as they are used in object and concept design. Students will be taught to conceptualize, develop, detail, present, and communicate on content as well as functionality of designs.

**Prerequisite: ART 09344, may be taken concurrently**  
With an emphasis on symbols/logos and image translation, this course is focused on concept development and establishing hierarchy through the organizational structure of type and image. Acknowledging the role of context in the interpretation of form, students will begin to address tailoring communication to defined audiences. They will be introduced to visual identity systems and branding while investigating additional methods and processes for design problem-solving in professional practice.

ART 09350: Intermediate Graphic Design IV: Packaging  
**Prerequisite: ART 09349**  
This course explores three-dimensional form development of theoretical and applied packaging techniques. Content emphasizes structural design and packaging types, surface graphics, and typography. Working from project briefs, students are introduced to genre-specific issues including production methods and materials, branding, retail/wholesale markets, legislative requirements, product launches, and professional guidelines for best practices in contemporary packaging.

ART 09351: Computer Art Techniques I  
This course introduces students to the techniques made possible by the computer with design, drawing and painting programs. The course explores the computer's ability to execute designs as well as copying, rescaling, mirroring, rotating, color permutation, tapering, shadowing filling and animating.

ART 09352: Intermediate Ceramics  
**Prerequisite: ART 09240**  
These studios provide advanced students an opportunity for intensive, self-structured, independent work. Studio work, kiln construction, advanced clay and glaze formulation is covered. There are on-going critical analyses of individual work and its relation to contemporary aesthetic issues.
ART 09354: Special Topics In Graphic Design 1 to 3 s.h.
Prerequisites: ART 09344 and ART 09349
This course provides extended study of typography and design, on topics as determined by faculty in the studio area of Graphic Design. Through this course, students’ knowledge of facts, concepts, and technical skills will advance as they consider and explore new design challenges. The topical content may vary each time the course is offered. Students may enroll in this course multiple times.

ART 09356: Introduction to Biomedical Illustration 4 s.h.
Prerequisite(s): ART 02222
This course is designed to develop strong observational skills, and integrate traditional and digital media within the scope of Biomedical Art and Visualization production. The goal will be to convey an aesthetically powerful illustration, which effectively provides a solution for a specific visual communication. The student will learn a vocabulary for expressing pertinent natural science and medical art concepts in relation to technique, design, composition, object accuracy/integrity and context. Elective students in the broader areas of Art, Design, Science and Medicine will be required to apply the concepts and techniques taught in class to specific content pertinent to their major of study. The integration of traditional and digital media will be used in unique ways to explore the boundaries of medium and convention in modern production.

ART 09358: Web Design: Designing For The World Wide Web 3 s.h.
Prerequisites: ART 02222 and ART 09343
This course introduces students to the basic concepts, issues, and techniques related to designing, building, and managing intelligent, usable, and well-designed web sites. The students will learn how to create dynamic sites that consider the needs of the client and audience within the context of contemporary graphic arts and web design.

ART 09359: Web Design: Interactivity And Motion Graphics 3 s.h.
Prerequisites: ART 02222 AND ART 09342
This course introduces students to concepts, issues, and techniques related to web design and motion graphics, giving them the tools to create and publish animated web sites, produce e-learning content, edit and author audio, as well as create basic online games. Students will also learn about the theory and practice of artists working in this medium.

ART 09360: Biomedical Visualization in Motion 4 s.h.
Prerequisite(s): ART 02222 and ART 09253
An aesthetically based course that communicates didactic information. This course serves as an introductory platform to investigate and discover biomedical visualization in motion depicting organic objects, environment, human and natural science 3D animation to create dynamic narratives with goals to communicate an educational message and instruct the viewer. The student will use the concept of narratives to tell animated instructional short stories of the body, environment and/or natural science through the medium of 3D digital animation software. The principles of 3D space and motion/timing will be used as the foundation for understanding how to communicate a message through didactic animation.

ART 09363: Advanced Graphic Design V: Publication Design 3 s.h.
Prerequisite: ART 09349
An advanced studio course investigating narrative and expressive use of grids, typography, photography and illustration for editorial and information design. Course content includes discussion of editorial vs. advertising design; serial versus monographic visual organization; the roles of graphic designer, art director, and creative director; and contemporary implications and integrations of print and digital presentation.

ART 09364: Advanced Graphic Design VI: Visual Communication 3 s.h.
Prerequisite: ART 09363
This course combines advanced studio problems with critical theory for professional design practice. It incorporates client-based projects and direct contact with clients. Students will work individually and in teams to conceptualize and develop comprehensive design programs and to formulate design standards. Through lectures, readings, and case studies this course will also explore the practice of Design Management, including issues of pricing work, intellectual property, project management, and design responsibility and sustainability in a global consumer culture.

ART 09365: Time-Based Media: Animation 3 s.h.
Prerequisites: ART 02222
This course is a hands-on studio workshop that covers concepts, issues, and techniques related to 2-D animation, exploring the growing range of genres and applications from within the arts including stop-motion, computer-generated animation and experimental animation techniques. Students will create their own 2-D animations as well as study the theory and practice of artists working in the medium. This course supports the fine arts experience by cultivating innovation, visual creativity, experimentation, intellectual enquiry and the acquisition of professional animation techniques.
Course Descriptions

ART 09375: Time-Based Media: Video 3 s.h.
Prerequisites: ART 02222
This course is a hands-on studio workshop that covers concepts, issues, and techniques related to video, exploring the growing range of genres and applications from within the arts and industry including video installation, narrative film, documentary film, performance video, and exhibition documentation. Students will create their own video-based projects as well as learn about the theory and practice of artists working in the medium. This course supports the fine arts experience by cultivating innovation, visual creativity, experimentation, intellectual enquiry and the acquisition of professional video production techniques.

ART 09377: Multimedia Computer Art 3 s.h.
This course combines computer skills of drawing, imaging, sound, design, and animation to create interactive and time-based presentations. Using editing and production software/hardware students will learn how to transform their ideas from a storyboard to a unique and finished presentation. Students will also learn about the theory and practice of artists working in this medium.

ART 09380: Advanced Puppetry V 3 s.h.
Prerequisites: DESN 09225 or ART 09225 and DESN 09226 or ART 09226 and DESN 09310 or ART 09310 and DESN 09313 or ART 09313
These courses study in-depth a specific phase of puppetry. They emphasize hand and rod puppets, shadow puppets and black theatre, marionettes and the history of puppetry.

ART 09381: Advanced Puppetry Vi 3 s.h.
These studio courses offer in-depth involvement with sophisticated puppetry techniques. Students will develop individual expertise, style and approaches to the art of puppetry.

ART 09390: Work In Progress Review 0 s.h.
A required review of work-in-progress for all B.F.A. students.

ART 09401: Senior Show Or Project 0 s.h.
Each B.A. student will prepare and mount selected works as a senior exhibition or execute an equivalent project. Required for graduation.

ART 09405: Advanced Puppetry Vii 3 s.h.
These studio courses offer in-depth involvement with sophisticated puppetry techniques. Students will develop individual expertise, style and approaches to the art of puppetry.

ART 09406: Advanced Puppetry Viii 3 s.h.
These studio courses offer in-depth involvement with sophisticated puppetry techniques. Students will develop individual expertise, style and approaches to the art of puppetry.

ART 09411: Advanced Metals And Jewelry 3 s.h.
Prerequisites: ART 02222 and ART 09201 and ART 09311
Advanced students will utilize the skills learned in Introduction and Intermediate levels of Metals/Jewelry to independently research ideas and techniques in order to create concept driven jewelry or metalwork. Student and professor will work together to establish direction in creation of individual pieces or a body of work.

ART 09419: Advanced Illustration 3 s.h.
Prerequisite: ART 09336
Students will pursue advanced work concentrating on further development of the illustrator's vocabulary and procedures. Assignments are developed in consultation with the instructor. Periodic critiques are held to help each student develop a complete professional portfolio.

ART 09450: Advanced Ceramics 3 s.h.
Prerequisite: ART 09352
This advanced production course combines extensive research and scriptwriting skills with sophisticated field production techniques. Students select subjects of local interest to feature in high-quality, 20 minute documentaries involving pre-production planning, extensive field shooting, and post-production editing on Avid editing systems. Field production includes use of single and multiple camera units.
ART 09452: Computer Art Techniques II 3 s.h.
This course allows students to draw, paint, animate, layout and design using computers and software. Students may specialize in fine arts, illustration, drawing, crafts, interior designing, textiles, package design lettering/typography or desktop publishing. Students develop their own professional portfolios of computer art.

ART 09453: Biomedical Art: Simulation & Education Game Design 4 s.h.
Prerequisite(s): ART 09253 and ART 09356 and ART 09360
An aesthetics based course that communicates didactic content through the fundamentals of serious or educational game development. The course materials and projects will help students understand how and why games can be used for learning in the fields of health, medicine, science and games for social change. The course exposes students to examples of the current work and research in game design mechanics, game learning mechanics and assessment mechanics; which are integral to aesthetic development of successful educational games. Students will be exposed to industry-specific serious games (games for learning, corporate training, news games, games for health, science, exer-games, military games, and games for social change.) These examples along with specific lecture topics and materials, will allow the student to understand how to develop their own serious games projects that deliver didactic content through a visually-driven media by learning specific research methods for understanding content, players and engagement strategies.

ART 09454: Surgical Illustration and Media 4 s.h.
Prerequisite(s): ART 02222 and ART 09251 and ART 09356
This studio course is an introduction to the illustration of surgical procedures and its fundamental application within the discipline of biomedical art. It is based on the belief that understanding the concepts of medical and/or veterinary surgery is essential to creating effective illustrations and other media that visually communicate the information. Students will research surgical procedures and techniques, sketch procedures in the operating room, prepare comprehensive sketches outlining visual narrative of surgical procedures, and render final illustrations/media presentations using a variety of digital media.

ART 09463: Advanced Graphic Design VII: Internship 0 to 3 s.h.
Prerequisite: Permission of Instructor
Students are encouraged to seek internships in the design industry to further their professional skills and understanding of the design profession. Faculty will assist in preparation and placement but the student is expected to take initiative in seeking this experience. Design industry experience is under the supervision of both university and employer; written and oral critique of activity is required.

ART 09464: Advanced Graphic Design VIII: Portfolio 3 s.h.
Prerequisite: ART 09363
This course focuses on professional development through advanced independent problem-solving and conceptual investigation. Portfolio formats, resume development, interview skills, professional presentation, and job-seeking strategies are addressed and explored. The course culminates in a formal presentation of a design portfolio by each student.

ART 09490: B.F.A. Senior Thesis Exhibition 0 s.h.
This experience allows students an opportunity to enhance their portfolio skills. This exit evaluation, in the form of a solo exhibition, will give students an occasion to make note of their work development and to determine their progress as emerging professional artists.

ART 11250: Introduction To Photography I 3 s.h.
Prerequisites: ART 02222, Studio Core Portfolio Review
This studio identifies and defines the principles, techniques, and history of black and white photography. Students learn the photographic process from exposing and developing film, to making a final print and photo displays. Camera and darkroom techniques in black and white still photography are used to explore and discover the visual world. This course is designed to treat photography as a medium of personal expression as well as a fine art form. Students will learn to incorporate photography into their own studio specialization. Students will provide their own camera and supplies.

ART 11275: Intermediate Photography II 3 s.h.
This studio emphasizes the development of a critical eye and the use of black and white photography as a form of self-expression and an artistic medium. Students are expected to have a working knowledge of the photographic process. Students advance their technical skills in photographic printmaking, and further understand photography as fine art. Students work on long term individual projects, which will develop technical, aesthetic and conceptual mastery of their medium. Major emphasis is on studio lighting, as well as using 35mm and medium format cameras. Students focus on raising the levels of artistic skill and knowledge towards professional standards. Students will provide their own cameras and supplies.
ART 11350: Intermediate Photography II  
*Prerequisite(s): ART 02222*
This studio emphasizes the development of a critical eye and the use of analog and digital photography as forms of self-expression in an artistic medium. Students are expected to have a working knowledge of photographic processes, in both black and white film and digital media. Students advance their technical skills in photographic printing, and gain further understanding of photography as a fine art. Students work on long-term individual projects, which will develop technical, aesthetic and conceptual mastery of the medium. Additional emphasis is placed on studio lighting, as well as using 35mm, medium format, and digital cameras. Students focus on raising the levels of artistic skill and knowledge in order to attain professional standards. Students will provide their own cameras and supplies.

ART 11375: Non-Silver Imagery  
*Prerequisite(s): ART 02222 Studio Core Portfolio Review*
This studio class is an introduction to various means of relating the photographic image to other two or three-dimensional media. Experimental techniques in fine arts applications are explored within the medium of photography, including historical processes as well as new technologies. Non-silver processes such as Cyanotype, Gum Print, Liquid Light, Van Dyke Brown, and Toning are demonstrated. Students learn to incorporate bookbinding and other fine arts applications, while perfecting their knowledge of black and white photography. Students provide their own cameras and supplies.

ART 11380: Digital Photography  
*Prerequisite(s): ART 02222 Studio Core Portfolio Review*
This studio class will introduce students to the medium of digital photography and its applications towards the fine arts. Its development in the realm of fine arts and communications has greatly altered our understanding of photography and the use of an image. The aesthetic potential photography embodies seems to be endless. With its ability to change the way we explore ideas and create expression, digital photography has become a valuable tool for artists. Students continue to become more involved with photography by demonstrating digital imagery with painting, printmaking, graphic design, and illustration. Students learn the use of computer programs such as Photoshop to manipulate photography. Students learn the influence of digital photography on art and society in addition to the aesthetic nature of the medium. Students advance their technical skills in photography and learn to make photographs as fine art.

ART 11385: Large Format Photography  
*Prerequisite(s): ART 02222 Studio Core Portfolio Review*
This studio introduces students to the operation of a 4x5 view camera. Students learn about lens selection, the use of camera swings and tilts, and process procedures for sheet film. Students also learn about the work of many photographers who continue to work with large format cameras. The influence of large format photography on art and society will be examined in addition to the study of the aesthetic nature of the medium. The department for the students to borrow will supply view cameras. The student must purchase all film, paper, and supplies.

ART 11405: Advanced Photo Techniques  
*Prerequisite(s): ART 02222 Studio Core Portfolio Review*
In this studio students will build aesthetic and technical expertise by studying photography as an art form as well as a commercial endeavor. Students will learn and apply advanced black and white film exposure, processing and special printing techniques. An introduction to copying art works and producing slides will be included. The comprehension of special techniques and materials along with their relationship to the printed image and visual concept is emphasized. This includes experimenting with altered negatives and prints, solarization, hand coloring and toning, working with different graded papers and different paper developer. Students develop a cohesive body of work exploring some topics of their own. Students provide their own camera and supplies.

INAR 39333: ADVANCED PHOTOGRAPHY  

SMED 31350: Elementary Art Methods: Teaching And Learning Art A  
*Prerequisites: C- or better in EDUC 01282 and READ 30319 and SMED 33420 Corequisite: SECD 03330*
This course prepares pre-service teachers for instructing preschool, elementary and middle school students in the visual arts. Through laboratory and clinical field experiences learners will apply theories of artistic learning to authentic arts classroom situations while under faculty supervision. Assignments involve the learner in examining art curriculums, a variety of assessment strategies used by art teachers in the classroom, and approaches for critiquing student works and aesthetic enrichment. The learner will be required to prepare art lessons and units of study that demonstrate: a working knowledge of artistic concepts and skills, an understanding of the artistic development of children, and considerations for adaptive learning in the arts for special populations.
SMED 31360: Secondary Art Methods: Teaching And Learning Art B 3 s.h.
Prerequisites: ELEM 02270 and ELEM 02282
This course prepares pre-service teachers for instructing high school students in the visual arts. Through laboratory and clinical field experiences learners will apply theories of artistic learning to authentic arts classroom situations while under faculty supervision. Assignments involve the learner in examining high school art curriculums, a variety of assessment strategies used by art teachers in the classroom, and approaches for critiquing student works and aesthetic enrichment. The learner will be required to prepare art lessons and units of study that demonstrate a working knowledge of artistic concepts and skills, an understanding of the artistic development of the adolescent, and considerations for adaptive learning in the arts for special populations.

AH 10101: Allied Health Introduction To Health Care Professions I 1 s.h.
This is the first course in a 4 course seminar sequence in the pre-nursing licensure program. This course provides a comprehensive overview of the most current trends and issues occurring in nursing and health care. It is about the exciting evolution of nursing: its very visible public image and its core foundations, which include nursing theory, nursing education, and licensure and certification. This course will serve as a valuable resource for the entry-level nurse.

AH 10102: Allied Health Introduction To Health Care Professions II 1 s.h.
Prerequisite: AH 10101
This is the second course in a 4 course seminar sequence in the pre-nursing licensure program. This course provides a comprehensive overview of the most current trends and issues occurring in nursing and health care including health care economics, the evolution of the health care system, health care policy and politics, and legal and ethical issues. This course will serve as a valuable resource for the entry-level nurse.

AH 10103: Allied Health Introduction To Health Care Professions III 1 s.h.
Prerequisites: AH 10101 and AH 10102
This is the third course in a 4 course seminar sequence in the pre-nursing licensure program. This course provides a comprehensive overview of the most current trends and issues occurring in nursing and health care, with a focus on the basic skills that are necessary for nurses to function effectively in the professional nursing role. Topics include leadership role and management theory, effective communication, nursing care delivery models and the role of nursing research and evidence base practice. This course will serve as a valuable resource for the entry-level nurse.

AH 10104: Allied Health Introduction To Health Care Professions IV 1 s.h.
Prerequisites: AH 10101 and AH 10102 and AH 10103
This course is the fourth and final course of a 4 course seminar sequence in the pre-nursing licensure program. This course provides a comprehensive overview of the most current trends and issues occurring in nursing and health care, preparing the student to embark on a career in the field of nursing. Topics include the transition process from student to professional nurse, contemporary nursing roles and career opportunities, time management and the NCLEX exam. This course will serve as an excellent base for novice students as they build their career into professional nursing.

BIOL 01100: Biology I 4 s.h.
This course studies the chemical properties of protoplasm; cell structure and cell division; metabolic processes in organisms, including photosynthesis and respiration; principles of genetics including Mendelian laws; evolution and ecological relationships of organisms.

BIOL 01101: Biology II 4 s.h.
Prerequisites: BIOL 01100
This course provides a brief survey of the different kinds of plants and animals; the roles of hormones and enzymes; tropisms; growth and development; plant and animal tissues and organ systems.

BIOL 01104: Biology I: Diversity, Evolution, And Adaptation 4 s.h.
This laboratory course is designed for freshman Biology majors and is the first of a four-course introductory sequence. This course introduces students to organismal diversity and its evolutionary origins, covers the fundamental concepts of evolutionary theory, and surveys many of the ways that organisms have become adapted to their environments. In addition, students in this course will learn some of the basic skills necessary for scientific inquiry, including the scientific method, critical thinking, experimental design, and the gathering, analysis, and presentation of quantitative data. Credit will not be given for both Biology I (BIOL 01104) and Biology I (BIOL 01100). Priority for enrollment will be given to students declared as Biology majors, Biology minors, Computer Science majors, Biochemistry majors, Environmental Studies majors, Environmental Studies minors, or Pre-Medical concentration.
Course Descriptions

BIOL 01105: Essentials Of Biology 4 s.h.
Prerequisites: CHEM 05102
This laboratory course provides an introduction to cell and tissue structure, cellular reproduction and metabolism, and mechanisms of evolution. A brief survey of the plant and animal kingdom emphasizes how their systems have changed through evolution.

BIOL 01106: Biology 2: Concepts In Genetics 4 s.h.
Prerequisites: BIOL 01104
This course is designed for first year biology majors and builds on skills and knowledge gained by the students from Biology 1. The course focuses on the study of genetic factors in bacteria, viruses, higher plants and animals. The principles of mendelian, molecular and population genetics will be introduced. Discussion of genetic applications in agriculture, biotechnology, and medicine will be an integral part of the course. The laboratory projects will provide the students with the opportunity to gain hands-on experience with the most common classical and molecular genetics methods. Credit will not be given for both Biology 2 (BIOL01.104) and Biology II (BIOL01.101).

BIOL 01110: Human Biology 3 s.h.
This non-laboratory course acquaints students with the structure and function of man. It stresses the major organ systems of the body.

BIOL 01112: General Biology: Environmental Focus 4 s.h.
This one-semester laboratory course provides an introduction to the basic concepts of the biological sciences, including, but not limited to, origin of life, evolution of multicellular organisms, population and community ecology, and a survey of the modern kingdoms of living organisms. Emphasis will be placed on ecological and conservation problems. Laboratory exercises enable the student to visualize many of the concepts discussed in class. No credit toward biology major.

BIOL 01113: General Biology: Human Focus 4 s.h.
This one-semester laboratory course provides an introduction to the basic concepts of the biological sciences, including, but not limited to, cell biology, the body plan and organ systems of vertebrate animals, genetics and heredity, and vertebrate evolution. Emphasis will be placed on how these topics relate to the human organism. Laboratory exercises enable the student to visualize many of the concepts discussed in class. No credit toward biology major.

BIOL 01115: General Biology: Plants And People 4 s.h.
This laboratory course considers the diversity of uses of plants in human cultures, and the biological bases for their utility. The course is primarily concerned with the positive impact of plants, including their roles in human nutrition, medicine, clothing, fuels, building materials, and ecosystems. It also considers the negative impact of plants as weeds and health hazards. Students who complete this course will have a comprehensive understanding of the importance of plants in human societies, from a biological perspective. No credit toward biology major.

BIOL 01201: Pharmacognosy 3 s.h.
Prerequisites: BIOL 01204
This is a lecture/demonstration course which studies the science that embraces the history, source, cultivation, collection, preparation, distribution, commerccem idntification, composition, purity and preservation of drugs of plant origin.

BIOL 01202: Biology 3t: Biological Skills And Methods 4 s.h.
Prerequisites: BIOL 01100 and BIOL 01101
This laboratory course is designed for students transferring into the Biology major after having completed Biology I and Biology II at another institution. This course will review key topics covered in Biology 1, 2, and 3 (BIOL01.103, BIOL01.104, and BIOL01.203) while introducing students to a variety of scientific skills covered in those courses. Examples of skills include critical thinking, experimental design, reading of primary literature, data collection, analysis, and interpretation, and oral and written scientific presentations. Credit will not be given for both Biology 3 (BIOL01.203) and 3t (BIOL01.202).

BIOL 01203: Biology 3: Introduction To Cell Biology 4 s.h.
Prerequisites: BIOL 01106
This laboratory course introduces students to the fundamentals of cell biology, including the cellular basis of life, cell evolution, cellular organization, cell metabolism, cell diversity, cell-cell communication, intracellular signaling and the cellular basis of disease.

BIOL 01204: Biology 4: Global Ecology 4 s.h.
Prerequisites: BIOL 01104, BIOL 01106 and BIOL 01203 or BIOL 01100 and BIOL 01101 and BIOL 01202
This laboratory course serves as the capstone for the biology core curriculum. Students will learn integrative concepts linking topics from Biology 1, 2, and 3 together in terms of population, community, and ecosystem-level ecological processes. We will explore these concepts through case studies covering diverse topics from biodiversity patterns to anthropogenic effects on individuals to ecosystems. This course will reinforce the skills introduced in earlier core courses, and will build upon these skills with further expectations of writing, primary literature synthesis and review, and critical thinking.
Course Descriptions

BIOL 01205: Foundations in Biology for Biomedical Sciences I 4 s.h.
Prerequisite(s): CHEM 06101 or CHEM 06106
This laboratory course is the first of the two semester sequence designed for students not majoring in Biology but interested in pursuing studies in biomedical areas through advanced Biology courses. This sequence serves as an introduction to fundamental biological concepts and the foundation for upper-level biology courses for such students. Both courses of the sequence focus on genetics, cell biology, and evolution and their relation to human health. This course focuses more specifically on the molecular basis of variation and heredity and its evolutionary context.

BIOL 01206: Foundations in Biology for Biomedical Sciences II 4 s.h.
Prerequisite(s): BIOL 01205
This laboratory course is the second of the two semester sequence designed for students not majoring in Biology but interested in pursuing studies in biomedical areas through advanced Biology courses. This sequence serves as an introduction to fundamental biological concepts and the foundation for upper-level biology courses for such students. Both courses of the sequence focus on genetics, cell biology, and evolution and their relation to human health. This course focuses on molecular and cellular mechanisms of life and their evolutionary context.

BIOL 01210: Biological Systems And Applications 4 s.h.
Prerequisites: CHEM 06105
Fundamental concepts and applications of biochemistry, cellular biology, microbial physiology, and environmental microbiology will be presented during this course. Emphasis will be placed on the theme that all biological systems (from the molecular level to the community level) are dynamic and interactive. Laboratory sessions will expose students to a variety of standard biological techniques from areas such as biotechnology, microbiology, and environmental biology. No credit toward biology major.

BIOL 01300: Phycology 3 s.h.
Prerequisites: BIOL 01204
This laboratory course considers the algae. It studies the relationships of these organisms as they are ordered in taxonomic schemes. Proper identification of specimens will be emphasized. May not be offered annually.

BIOL 01310: Evolution 4 s.h.
Prerequisites: BIOL 01204
This laboratory course considers organic evolution, including its conceptual basis, its historical development, the processes that produce it, and the evolutionary history of life on earth. Laboratory exercises will include simulations of evolutionary processes, demonstrations illustrating patterns of evolution in the past, and opportunities to utilize research techniques of evolutionary biology.

BIOL 01320: Introduction To Virology 4 s.h.
Prerequisites: BIOL 01204
This laboratory course explores topics such as virus origin and evolution, their physical structure and chemical composition, taxonomy, and modes of transmission. The mechanisms involved in their control of the machinery of their host cells will be studied in detail. Particular focus will be placed on important virus-associated human and animal diseases, AIDS, and the role of viruses in cancer.

BIOL 01325: Introduction To Mycology 4 s.h.
Prerequisites: BIOL 01204
This lecture and laboratory course provides a comprehensive treatment of the morphology, taxonomy, physiology, and ecology of fungi, and their involvement in man’s everyday life. This course may not be offered annually.

BIOL 01352: Ornithology 4 s.h.
Prerequisites: BIOL 01204
This course covers anatomy, physiology, ethology and ecological parameters of the avian community. Laboratory and field investigations form a significant part of the course. May not be offered annually.

BIOL 01356: Parasitology 4 s.h.
Prerequisites: BIOL 01204
This lab course examines the biology of organisms that normally grow only in or on the living body of another, and from which they obtain nourishment.
BIOL 01405: Conservation Biology
Prerequisites: BIOL 01204
This laboratory course for upper-level students majoring in biology is designed to familiarize students with the current crisis in global biodiversity. The objectives of this course are to examine fundamental and applied aspects of genetics, population and community ecology, paleontology and systematics, agriculture and forestry, wildlife biology and zoo management, and sociology and economics. Laboratory and field exercises are designed (i) to introduce students to local, regional and global conservation issues and (2) to emphasize synthesis and creativity in addressing conservation problems.

BIOL 01428: Developmental Biology
Prerequisites: BIOL 01204 and BIOL 1430 or BIOL 01101 and BIOL 14440 or BIOL 01204
This course studies the development of multicellular organisms from fertilization, through embryonic and post-embryonic stages. Topics include fertilization, cellular differentiation, regulation of gene expression, pattern formation, morphogenesis, and evolution of developmental mechanisms. Experimental approaches of developmental biology will be emphasized.

BIOL 01430: Cell Biology
Prerequisites: BIOL 01204
This laboratory course addresses the fundamental properties of cells from an experimental perspective by exploring modern and classic experiment approaches to the study of cell biology. Structural, biochemical and molecular aspects of cell function will be considered.

BIOL 01435: Cell Culture Technology
Prerequisites: BIOL 01204
This laboratory course introduces advanced biology students to the history, theory, and techniques of maintaining live cells in long-term culture. The combination of lectures and laboratory experiences have been designed to demonstrate cell biology in both theory and practice. The course is very much geared to a "hands-on" approach in the context of real laboratory operations in neighboring work areas.

BIOL 01440: Special Topics In Biological Sciences
Prerequisites: BIOL 01204
This seminar course is a literature-driven exploration of a broad range of topics in individual areas of the biological sciences. The particular subjects discussed will examine both fundamental and cutting-edge biological processes and technologies. Students will be required to give oral presentations on the selected topics. They may be also asked to submit written reports. This course is expected to strengthen the skills of students in critical reading and evaluation of the primary scientific literature. This course is required for all Biology majors.

BIOL 01445: Special Topics In Biological Sciences - Wi
Prerequisites: BIOL 01204, COMP 01112 and senior standing
This seminar course is a literature-driven exploration of a broad range of topics in individual areas of the biological sciences. The particular subjects discussed will examine both fundamental and cutting-edge biological processes and technologies. Students will be required to give oral presentations on the selected topics. They may be also asked to submit written reports. This course is expected to strengthen the skills of students in critical reading and evaluation of the primary scientific literature. This course is required for all Biology majors.

BIOL 01450: Independent Study In Biological Sciences
3 s.h.
Students conduct independent work on a project concerned with biological science with the supervision of a selected faculty member. This course requires development and execution of the proposed work, including preparation of an acceptable report of work completed.

BIOL 01454: Herpetology
Prerequisites: BIOL 01204
Students make an intensive study of the behavior, ecology, evolution and physiology of amphibians and reptiles. Laboratories stress identification, gross anatomy and techniques.

BIOL 01458: Mammalogy
Prerequisites: BIOL 01204
This course provides a detailed study of the mammals of the world. Its topics include: the anatomy, behavior, ecology and systematics of the class. Laboratory work emphasizes the mammals of New Jersey as well as field work.
Course Descriptions

BIOL 01460: Animal Ethology 4 s.h.
Prerequisites: BIOL 01204
An in-depth study of animal behavior under natural conditions, this course deals with the major theories of innate behavior.

BIOL 01465: Animal Histology 4 s.h.
Prerequisites: BIOL 01204
This upper level lecture and laboratory course provides an in-depth study of animal tissue. It includes the examination and identification of specific cells, tissues and organs. The students will develop laboratory skills in cytological and histological techniques. The relationship of histology to cell biology, physiology and pathology will be emphasized.

BIOL 01470: Ichthyology 4 s.h.
Prerequisites: BIOL 01204
This course is a senior-level zoology course designed to introduce students to the fundamental aspects of the biology of the major groups of fishes. Topics to be discussed in class include taxonomy and systematics of the major groups of fishes, a survey of modern fishes, their basic structure and function, behavior, and ecology. Laboratory exercises are designed to introduce students to current methods, approaches, and topics; field exercises are designed to survey the diversity of fishes and their habitats in New Jersey and nearby states.

BIOL 01475: Biology Lab/Field Research 3 s.h.
This course introduces and/or develops research techniques used in biological research. Research is performed in collaboration with one or more faculty in an area of specialization of the faculty. Emphasis will be placed on developing research skills, developing technical writing skills, and the development of skills needed for scientific presentations. Up to three credits from this course may be counted towards the major; additional credits may count as free electives.

BIOL 02300: Introductory Botany 4 s.h.
Prerequisites: BIOL 01204
This laboratory course considers the biology of plants. It is a broad survey of plant nutrition, physiology, development, anatomy, morphology, reproduction, evolution and ecology. An emphasis is placed on the structure and function of plants and the relevance of plants to humanity and the global environment.

BIOL 02301: Plant Diversity 4 s.h.
Prerequisites: BIOL 01204
This laboratory course considers the patterns of plant diversity and the processes that generate and maintain plant diversity. Several types of diversity are assessed for each of the major groups of plants, including diversity in morphology, physiology, evolution, ecology and human economy. Students who complete this course will have a better understanding of the types and sources of plant diversity, and the role of human and nonhuman factors in affecting plant diversity.

BIOL 02350: Flora Of New Jersey 4 s.h.
Prerequisites: BIOL 01204
This laboratory course is an exploration of the local flora in terrestrial communities, from the shore to the Pine Barrens. The emphases of this course are plant communities and the identification of plants. It also provides an overview of plant conservation and the features of plants that determine their population dynamics. The focus of the laboratories is several all-day field trips. Offered during summer sessions.

BIOL 02405: Stream Ecology 4 s.h.
Prerequisites: BIOL 01204
This course covers topics in the area of study concerned with the physical, chemical, biological and ecosystems processes in creeks, streams and rivers (so-called lotic environments or related running waters). The course has a strong laboratory component with hands-on research in an effort to understand local stream ecology.

BIOL 02455: Bioinformatics: Biological Applications 3 s.h.
Prerequisite: BINF 07250
This course in bioinformatics covers the application of modern computational and functional genomics methods to current questions in biological and biomedical sciences. Bioinformatics approaches and philosophy will be highlighted through exploration of research problems in cell and developmental biology, molecular biology, population genetics, evolutionary biology, and ecology. Collaborative learning and problem-solving using computational, statistical and genomics methods will be emphasized.
## Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>BIOL 07300</td>
<td>Invertebrate Zoology</td>
<td>4 s.h.</td>
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<td></td>
<td><strong>Prerequisite</strong>: BIOL 01204</td>
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<td></td>
<td>This laboratory course will focus on the diversity and adaptations of single-celled and multicellular invertebrates. We will explore the current understanding of the evolutionary relationships among taxa, using both traditional morphological and contemporary genetic approaches.</td>
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<tr>
<td>BIOL 07301</td>
<td>Comparative Vertebrate Anatomy</td>
<td>4 s.h.</td>
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<td></td>
<td><strong>Prerequisites</strong>: BIOL 01204</td>
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<td></td>
<td>This laboratory course provides an intensive comparative study of the gross and microscopic anatomy of vertebrate animals, including dissection of representative chordates.</td>
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<tr>
<td>BIOL 07400</td>
<td>Comparative Biomechanics</td>
<td>4 s.h.</td>
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<td></td>
<td><strong>Prerequisite(s)</strong>: BIOL 01204 and (PHYS 00211 or PHYS 00221)</td>
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<td>This upper-level Biology elective with lab examines the function of organisms in terms of mechanics. Focusing mainly on animals, the course covers topics such as locomotion and feeding in both aquatic and terrestrial environments, as well as looking at systems such as circulation and respiration in terms of fluid mechanics.</td>
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<tr>
<td>BIOL 10210</td>
<td>Human Anatomy And Physiology I</td>
<td>4 s.h.</td>
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<td></td>
<td>This course offers a molecular, cellular and systematic approach to the structure and function of the component units and organizational systems of humans. Emphasis is placed on membrane physiology and the skeletal, molecular, digestive and circulatory systems.</td>
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<tr>
<td>BIOL 10212</td>
<td>Human Anatomy And Physiology II</td>
<td>4 s.h.</td>
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<td>This laboratory course focuses on the gross and microscopic structure of the body. The course is the second semester of a two-semester sequence that covers all of the functional systems of the human organism. In this course, the systems of the body to be studied in detail include the endocrine, cardiovascular, respiratory, excretory, digestive, and reproductive systems. Whole body metabolism and fluid balance will also be studied.</td>
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<tr>
<td>BIOL 10345</td>
<td>Human Physiology</td>
<td>4 s.h.</td>
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<td></td>
<td><strong>Prerequisites</strong>: BIOL 01204 and CHEM 07200</td>
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<td>This course surveys the basic physiology of the human organism, emphasizing the nervous and circulatory systems.</td>
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<tr>
<td>BIOL 10350</td>
<td>Work Physiology</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites</strong>: BIOL 01204</td>
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<td>This course studies the effect of short term and long term work stress on the human organism. This course may not be offered annually.</td>
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<tr>
<td>BIOL 10381</td>
<td>Cellular and Molecular Neuroscience</td>
<td>3 s.h.</td>
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<td><strong>Prerequisite(s)</strong>: B+ or higher grade in PST 10315, or Permission of Instructor.</td>
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<td>This lecture course will cover the major issues of cellular neurosciences, including molecular and cellular events underlying neural signaling, synaptic transmission, neuronal development and migration, and neuronal plasticity will be discussed. Topics include the cellular structure of neurons and glia, neurogenesis, synaptogenesis, molecular bases of neuronal transmission and memory, and the genetics of behavior. Special attention will be paid to current issues such as stem cell transplantation, neuronal regeneration of the central nervous system, neurological disorders, and animal models being used in these areas.</td>
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<tr>
<td>BIOL 10401</td>
<td>Animal Physiology</td>
<td>4 s.h.</td>
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<td><strong>Prerequisite(s)</strong>: BIOL 10204</td>
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<td>This laboratory course provides the student with in-depth knowledge of the various systems of the animal body. Students will understand and predict the structure-function relationships across various animal groups from the molecular to the organismal level. Specific adaptations to environmental conditions, whether naturally occurring or as a result of acclimation to new areas, will be discussed. Students will also investigate the various processes of homeostasis and system regulation that exist in animals. Physiological simulation and dissection preparations will be used to provide the student with hands-on skills on physiological research methodology and techniques.</td>
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<tr>
<td>BIOL 11330</td>
<td>Microbiology</td>
<td>4 s.h.</td>
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<td><strong>Prerequisites</strong>: BIOL 01204</td>
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<td>This course deals with the morphology and physiology of unicellular organisms, with emphasis upon bacteria. It studies culture methods, growth parameters, isolation, identification and characterization, and metabolism of microorganisms in the laboratory.</td>
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Course Descriptions

BIOL 11338:  Immunology  4 s.h.
Prerequisites: BIOL 01204
This course studies infection and resistance and the principles and types of immunity and hypersensitivity. Laboratory applications include: antigen-antibody formation, structure and reactivities.

BIOL 11405:  Environmental Microbiology  4 s.h.
Prerequisites: BIOL 01204 and BIOL 11330
This course covers topics related to microorganisms in the environment. It deals with the actions of microbes in the terrestrial, aquatic, air and plant/animal environment and places focus on microbial control and microbial applications.

BIOL 14440:  Introduction To Biochemistry - Lecture Only  3 s.h.
Prerequisites: BIOL 01204 and CHEM 07201
This course investigates chemical compounds and chemical reactions which are of paramount importance to the functioning of biological systems. It also examines the major metabolic pathways for energy production and biosynthesis.

BIOL 18360:  Marine Biology  4 s.h.
Prerequisites: BIOL 01204
Field and laboratory oriented, this course studies the interrelationships of marine animals and plants and provides instruction and experience in collecting and identifying examples of local marine flora and fauna.

BIOL 18400:  Limnology  4 s.h.
Prerequisites: BIOL 01204
This course introduces basic and applied concepts in limnology, or the study of fresh waters. It analyzes the physical, chemical, biological and ecosystems processes in lakes (so called lentic environments). The course has a strong laboratory component with hands-on research in an effort to understand regional lake ecology.

BIOL 19300:  Introduction To Oceanography  3 s.h.
This course introduces the varied techniques of the oceanographer; it emphasizes recent developments in the field of Marine Sciences as well as physical, chemical, geological and biological aspects of the world's oceans. Field work required; a trip on a research vessel recommended. Offered only in the summer at the New Jersey Marine Sciences Consortium facilities.

BIOL 19425:  Coastal Marine Geology  4 s.h.
This course includes a field study of the geological processes of the beach, bay, lagoon, estuary and salt marsh; it also covers erosional and depositional features and sediment analysis. Field experience is supplemented by laboratory work and individual projects. Offered in the summer at New Jersey Marine Sciences Consortium facilities.

BIOL 20100:  Introduction To Natural Resources  3 s.h.
This introductory course considers natural resources and their relationship to man and society. For science and non-science majors.

BIOL 20150:  Human Ecology: An Evolutionary Approach  3 s.h.
This course will take an evolutionary approach to understand how the environment has shaped biological and cultural changes in humans, and how humans have and are continuously impacting the environment. The emphasis of this course will be to understand the biological, cultural and environmental diversity that has emerged through human history and its impact in the intricate interactions among humans and between humans and their environment.

BIOL 20310:  Ecology  4 s.h.
Prerequisites: BIOL 01204
This course emphasizes population, communities and ecosystems. It studies aspects of energy flow, species diversity and population dynamics in a variety of ecosystems. The course requires laboratory and field work.

BIOL 20321:  Physiological Ecology  4 s.h.
Prerequisites: BIOL 01204
This course studies the physiological aspects of basic ecological principles and concepts, and the adjustments which organisms make in response to changing environmental factors. May not be offered annually.
BIOL 20330: Environmental Science  
**Prerequisites:** BIOL 01204  
This course covers topics related to general environmental issues, the flow of energy and matter through the environment, the natural resources to sustain life, their use and abuse, and the governmental laws and regulations concerning the environment. The course deals with the environmental ethics faced in today's society, the impact of pollution both to the environment and to humans, and the factors involved in urban ecology.

BIOL 20401: Principles Of Ecology  
**Prerequisites:** STAT 02260, CHEM 05102, MATH 03315 and BIOL 01100 or STAT 02260, CHEM 05102, MATH 03315 and BIOL 01105  
This course covers basic topics related to the ecological understanding of the environment from a point of view of population dynamics and community structure as well as individual organism’s ecology. It includes case studies of applied ecology.

BIOL 20425: Environmental Toxicology  
**Prerequisites:** BIOL 01024 and CHEM 07200  
This course covers topics related to the fate and impact of pollutants in the environment. This course deals with the laws and regulations of pollutant discharge, the kinds of chemical pollutants, the transport and distribution of such chemicals into the environment, and their effect in populations and communities as well as individual organisms. The acute and chronic effect of these pollutants, the principles of environmental monitoring and assessment, and special examples and case studies will be analyzed.

BIOL 20474: Tidal Marsh Ecology  
**Prerequisites:** BIOL 01204  
This course studies salt marsh development and physiography, community structure, energetics and interrelationships.

BIOL 21401: Entomology  
**Prerequisites:** BIOL 01204  
This course studies the insect anatomy; physiology and insect control; historical and economic significance of insects in man's society; methods of collecting, preserving, rearing and mounting of insects; insect classification. This course may not be offered annually.

BIOL 22335: Genetics  
**Prerequisites:** BIOL 01204  
The course will provide an in-depth background in all areas of Mendelian, molecular, population and evolutionary genetics. The students will learn how to use genetic tools in dissecting complex biological pathways, developmental processes and regulatory systems. Discussion of landmark genetic experiments will constitute the basis of an inquiry-based approach that will delineate the dynamic nature of modern genetics. The laboratory exercises are designed to put special emphasis on molecular biology techniques and the use of bioinformatics.

BIOL 22410: Concepts In Human Genetics  
**Prerequisites:** BIOL 01204  
The course will discuss the application of genetics principles to the human species. All major areas of genetics such as transmission genetics, cytogenetics, biochemical genetics, molecular genetics and population genetics will be covered. The emphasis will be placed on fundamental concepts and technological advances in the study of human genetics as they pertain to medical practice. The principles of human genetics applied to counseling, screening, ethics, law, and the evaluation of their social implications will also be addressed. The laboratory sessions will focus on the practical analysis of various case studies related to different human genetic disorders. Oral presentation of primary literature articles by the students is expected.

BIOL 22450: Molecular Genetics  
**Prerequisites:** BIOL 01204  
This course considers the principal concepts in biochemical genetics including gene function and regulation, DNA replication, and mutation. Laboratories focus on fundamental biotechnology concepts and techniques.

BIOL 22463: Comparative Embryology  
**Prerequisites:** BIOL 01204  
This laboratory course focuses on the morphological and physiologic processes involved in embryogenesis of animals. The course includes the development of echinoderms, amphibians, birds, and mammals. Considerable emphasis will be placed on organogenesis and the development of organ systems.
NURS 03302: Foundations Of Nursing Practice 6 s.h.
This course enables students to explore the historical and theoretical foundations of the profession of nursing. Students will focus on Maslow’s Hierarchy of Needs in providing nursing care. Classroom experience and seminars provide students with opportunities to utilize critical thinking skills to explore concepts basic to nursing. Faculty supervised learning laboratory practice and clinical experiences enable students to apply acquired knowledge in a variety of clinical settings. This course also explores issues that impact health promotion and the role of the nurse in promoting health and preventing disease. Such factors as population changes, health policy, ethics, and the therapeutic nurse-client relationship are discussed. Assessment of health in individuals, families, and communities is examined. Interventions for health promotion are discussed along with their application across the lifespan. Finally, future trends in health promotion are reviewed.

NURS 03303: Comprehensive Health Assessment 3 s.h.
This course focuses on total health assessment with differentiation between normal and abnormal findings. The total health assessment content focuses on individuals across the life span. Emphasis is placed on data collection and analysis through history and physical exam.

NURS 03304: Nursing Informatics 3 s.h.
This course reviews the information needs and information systems related to nursing practice. Students will experience the manner in which informatics supports all areas of practice, including education, clinical practice, administration and research.

NURS 03305: Pathophysiology 3 s.h.
Prerequisites: NURS 03303 and NURS 03307
Fundamental concepts of physiology, the changes that produce signs, symptoms, and the body’s remarkable ability to compensate for these changes are reviewed and extended in this course.

NURS 03306: Pharmacology 3 s.h.
This course reviews and extends the students' previous knowledge of pharmacological science. It explores mechanisms of action of drugs used to treat various health conditions at the cellular level. 3 credits Elective.

NURS 03307: Epidemiology In Nursing Practice 3 s.h.
In this course, the professional nursing student is introduced to a population-based approach to health care. Students will incorporate information on the etiology and predictors of events in order to design health promotion and disease prevention strategies.

NURS 03309: Topics In Health Care Ethics 3 s.h.
Students in this nursing course will examine moral dilemmas created or intensified by recent advances in medical technology and study ways of analyzing those dilemmas. Discussion topics include: euthanasia and the right to die, abortion, behavior modification, allocation of scarce medical resources, in vitro fertilization, genetic screening and engineering and human experimentation. These moral dilemmas will be related to nursing.

NURS 03330: Gerontological Nursing 2 s.h.
Prerequisites: NURS 03302 and NURS 03303 and NURS 03305 and NURS 03306 and NURS 03307 and NURS 03310 and NURS 03320 and NURS 03350 and NURS 03360 and NURS 03370
This course reviews and analyzes issues of aging from a physiological, psychosocial and cognitive perspective. Emphasis is placed on health maintenance, ethical considerations and legal issues as they relate to the care of the aging population.

NURS 03340: Adult Health Nursing 8 s.h.
Prerequisites: NURS 03302 and NURS 03303 and NURS 03305 and NURS 03306 and NURS 03307 and NURS 03310 and NURS 03320 and NURS 03350 and NURS 03360 and NURS 03370
This course enables students to identify multi-cultural interactions as they relate to nursing practice. Classroom experience and seminars provide students with opportunities to utilize critical thinking skills to explore concepts basic to nursing care of adult humans (18 years to senescence). Faculty supervised learning laboratory practice and clinical experiences enable students to apply acquired knowledge in a variety of settings.

NURS 03350: Childrearing Family 4 s.h.
Prerequisites: NURS 03302 and NURS 03303 and NURS 03305
This course enables students to identify their understanding of the human-environmental interactions and evolving family patterns within diverse cultures to promote optimal health. The student is provided with an opportunity to understand the patterns and organization of families, growth and development perspectives, and the nursing implications of common and complex health patterns from infancy through adolescence. Faculty supervised learning laboratory practice and clinical experiences enable students to apply acquired knowledge in a variety of settings.
Course Descriptions

NURS 03360: Childbearing Family
Prerequisites: NURS 03302 and NURS 03303 and NURS 03305
This course enables students to expand their understanding of human-environmental interactions and evolving family patterns within diverse cultures to promote optimal health. The student is provided with an opportunity to understand the family as a unified whole, its patterns and organization and the implications of common and complex health patterns from conception through birth.

NURS 03370: Mental Health Nursing
Prerequisites: NURS 03302 and NURS 03303 and NURS 03305
This course enables students to expand their understanding of human-environmental interactions and evolving mental health patterns within diverse cultures to promote optimal health. The student is provided with an opportunity to understand the organization of mental health patterns as they appear in normative growth and development, as well as the alterations in patterns with resulting nursing implications. The progression will be from common to more complex mental health patterns as they relate to nursing practice.

NURS 03401: Community Health Nursing
Prerequisite: NURS 03303
This course will explore how community health nurses use concepts from nursing and public health to provide comprehensive, continuous, preventive healthcare thereby promoting health for communities, populations at risk, aggregates, families, and individuals. Students will use critical thinking skills to formulate healthcare strategies which consider the biopsychosocial, cultural, ethical, legal and economic issues impacting the community as a client. The clinical practicum focuses on clients with diverse needs in a variety of settings.

NURS 03402: Environmental And Occupational Health
Prerequisites: NURS 03301, NURS 03303, NURS 03305, NURS 03306 and NURS 03304
The relationships that exist between the environment, the workplace, and health are the focus of this course. Key concepts, principles, and strategies related to environmental and occupational health nursing are explored. Teaching-learning strategies focus on critical thinking skills related to these areas of health care. Knowledge obtained from this course will prepare students to assess changes in health status that may be related to the environment or the workplace. Students are provided with skills needed to recognize, evaluate, and to recommend control strategies for these phenomena.

NURS 03403: Nursing Care Delivery Systems
Prerequisite: NURS 03303
The focus of this course is the professional nurse’s leadership and management role within health care delivery systems. The multi-faceted aspects of the role of the nurse as leader and manager are explored in depth, with emphasis on the role of the nurse as change agent. Organizational behavior, decision-making, the change process and the management of health care organizations are components of this course. The concepts of professionalism, leadership-management, research and teaching-learning are integrated with the professional nurse’s role as a manager. This course prepares students to function as change agents in the health care delivery system.

NURS 03404: Research Applications In Nursing Practice - Wi
Prerequisites: STAT 02100 and COMP 01112
Knowledge obtained from this course will prepare students to critically analyze nursing issues from an applied research perspective. Students are provided with the skills needed to manage and interpret nursing data while learning the basics of American Psychological Association (APA) format, which sets standards for the content and organization of a scholarly written paper for the discipline of nursing.

NURS 03405: Health Care Policy And Finance
Prerequisites: NURS 03301, NURS 03303, NURS 03305 and NURS 03304
The focus of this course is the professional nurse’s role in health care policy and finances within health care systems. The multi-faceted aspects of health care policy making and financing within today’s ever-changing health care environment are explored. Risk management and quality care are integrated into the course. This course gives the student a financial understanding of the health care delivery system. Students are exposed to the political and legislative process within health care agencies and health care policy development at the state and federal levels. Ethical and legal issues in nursing and health care are explored.

NURS 03416: Transition To Professional Nursing Practice
Prerequisites: NURS 03302 and NURS 03303 and NURS 03305 and NURS 03306 and NURS 03307 and NURS 03308 and NURS 03310 and NURS 03320 and NURS 03327 and NURS 03403 and NURS 03404
This course examines issues that must be addressed for the nursing student to successfully transition to the role of the professional nurse. The emphasis is on the application of the professional role in the clinical setting. Faculty supervised learning laboratory practice and clinical experiences enable students to apply acquired knowledge in a variety of settings.
BMS 01105: Introduction to Biomedical Sciences I
Prerequisite(s): None
This course is the first in a sequence of courses that introduces and provides an overview of the field of translational biomedical sciences while developing students’ understanding of tools used in this interdisciplinary field. Students will gain knowledge of the role of basic science in and the steps required to "translate" biomedical technologies from the bench top to the bedside through introductory examples, projects, and presentations.

BMS 01110: Introduction to Biomedical Sciences II
Prerequisite(s): BMS 01105
This hands-on, project-based course is the second in a sequence of courses that introduce and provide an overview of the field of biomedical sciences while developing students’ understanding of tools used in the field. Students will gain knowledge of the steps required to "translate" biomedical technologies from the bench top to the bedside through examples, projects, and presentations that have more technical detail than those in the first course in the sequence.

CHE 06201: Principles Of Chemical Processes I
Prerequisites: (MATH 01131 or MATH 01141) and PHYS 02200 or PHYS 00220 and CHEM 06105
This course presents an introduction to chemical engineering calculations; processes, process variables, and design. Material balances for chemically non-reacting and reacting systems are described. Single-phase and multi-phase systems; property tables and diagrams are reviewed. Demonstrations may be integrated throughout the course.

CHE 06202: Principles Of Chemical Processes II
Prerequisites: CHE 06201 minimum grade of C- and CHEM 06106
This course is a continuation of Principles of Chemical Processes I. It will describe energy concepts for chemical processes. This course presents energy balances for chemically non-reacting and reacting systems and will show students how to use property tables and diagrams. Computer-aided material and energy balance calculations will be performed. Transient material and energy balances will be introduced. Demonstrations may be integrated throughout the course.

CHE 06203: Principles of Chemical Processes
Prerequisite(s): CHEM 06101 and MATH 01131 and PHYS 00220 and being a Chemical Engineering major.
This course presents an introduction to chemical engineering calculations; processes, process variables, and design. Material balances for chemically non-reacting and reacting systems are described. Single-phase and multi-phase systems; property tables and diagrams are reviewed. The course also includes energy concepts for chemical processes. It presents energy balances for chemically non-reacting systems and shows students how to use property tables and diagrams. Computer-aided material and energy balance calculations are performed. Demonstrations may be integrated throughout the course.

CHE 06302: Principles Of Chemical Processes II
Prerequisites: CHE 06106 AND Grade of C- or better in CHE 06201
This course is a continuation of Principles of Chemical Processes I. It will describe energy concepts for chemical processes. This course presents energy balances for chemically non-reacting and reacting systems and will show students how to use property tables and diagrams. Computer-aided material and energy balance calculations will be performed. Transient material and energy balances will be introduced. Demonstrations may be integrated throughout course.

CHE 06309: Process Fluid Transport
Prerequisites: MATH 01236 and (ENGR 01341 minimum grade of C- or ENGR 01342 minimum grade of C-) and CHE 06202 minimum grade of C-
The course will introduce students to topics in fluid and momentum transport related to chemical processes. Students will investigate the fundamental and design topics of momentum and fluid transport beyond those covered in Fluid Mechanics I. The topics area will be applied to various chemical processing applications. Topics will include Newtonian and non-Newtonian fluid behavior, two-phase flow, flow through beds of solids, pumping of liquids and gases, and mixing.

CHE 06310: Chemical Engineering Thermodynamics I
Prerequisites: MATH 01236 and Grade of C- or better in CHE 06302 and Grade of C- or better in MATH 01235
This course provides a foundation in engineering thermodynamic principles. The course includes an overview of basic thermodynamic principles, heat effects, the Second Law of Thermodynamics, and thermodynamic properties of fluids and flow processes. The course will also include solution thermodynamics theory and application, phase equilibria, chemical reaction equilibria, power and refrigeration cycles, liquefaction and thermodynamic analysis of processes. The course will focus on the synthesis and solution of complex problems in a team project-oriented environment.
CHE 06311: Heat Transfer Processes 2 s.h.
Prerequisites: Grade of C- or better in CHE 06202 and (ENGR 01341, or ENGR 01342)
This course describes modes of heat transfer: conduction, convection (forced and natural) and radiation. It presents steady and unsteady state analysis of heat transfer, types of heat exchangers and heat exchanger design. Demonstrations and laboratories will be integrated throughout the course.

CHE 06312: Separation Processes I 2 s.h.
Prerequisites: (ENGR 01341 minimum grade of C- or ENGR 01342 minimum grade of C-) and CHE 06202 minimum grade of C- and (Math 01131 or MATH 01141)
This course describes modes of diffusion of mass and chemical composition. This course includes mass transfer analysis; molecular diffusion in gases, liquids, and solids and convective mass transfer. It will have an introduction to equilibrium-staged mass transfer operations such as: absorption/stripping, extraction/leaching operations. Demonstrations, laboratories and computer simulations may be integrated throughout this course.

CHE 06314: Separation Processes II 4 s.h.
Prerequisites: CHE 06309 and CHE 06312, (minimum grade of C-), and CHE 06310
This course is the second course of a two semester sequence in mass transfer and separation processes. The course presents several separation processes and their relevant theory, design and applications for gas, liquid and solid separation in both traditional and emerging industries. These processes include distillation; adsorption and chromatography; membrane separations, reverse osmosis and gas permeation; and solid liquid separations; centrifugation, particle filtration, crystallization. Demonstrations, laboratories and computer simulations may be integrated throughout this course.

CHE 06315: Chemical Engineering Thermodynamics II 3 s.h.
Prerequisites: CHE 06310 minimum grade of C-
This course is a direct continuation of Chemical Engineering Thermodynamics I. This course includes an in-depth view of multicomponent systems, phase equilibria such as liquid-liquid and solid-liquid equilibria, simultaneous chemical reactions equilibria, and electrolyte equilibria. The course will also cover chemical engineering thermodynamics applications in emerging technologies such as the biochemical and biomedical fields.

CHE 06316: Chemical Reaction Engineering 4 s.h.
Prerequisites: CHE 06309 and CHE 06310 and CHE 06311 and CHE 06312 and CHEM 07200
This course describes various topics related to homogeneous and heterogeneous reaction kinetics, idealized reactor models for batch and flow systems, corrections for non-ideal residence times, and heat and mass transfer effects. An introduction will be made to homogeneous and heterogeneous catalytic processes and industrial catalytic reactors. Demonstrations and laboratory exercises will be integrated into the course.

CHE 06401: Chemical Process Component Design 4 s.h.
Prerequisites: CHE 06315 and CHE 06314 and (CHE 06316 with minimum grade of C-)
This course addresses the problems in economic design of chemical process components used in the synthesis of overall chemical processes. Economic aspects of engineering, including evaluating alternative course of action, cost factors, and process optimization are presented. Safety and environmental considerations in process selection will be discussed.

CHE 06402: Transport Phenomena 3 s.h.
Prerequisites: CHE 06314 and CHE 06316
This course describes analogies among heat, mass, and momentum transfer. Governing differential equations are presented and their uses in steady-state and unsteady-state systems. This course reviews applications to mass transfer coupled with heat transfer and/or chemical reaction. Numerical methods and computer applications are included.

CHE 06403: Unit Operations Experimental Design And Analysis 2 s.h.
Prerequisites: CHE 06315 and CHE 06314 and CHE 06316
This course addresses the fundamental operation and applications of chemical engineering unit processes, generally referred to as unit operations. Students will learn and develop experimental designs and engage in the data analysis required to characterize the operations and relate theory to industrial practice. Students will engage in pilot-scale process experimentation based on appropriate experimental designs and analysis. Typical processes covered include process filtration, tubular flow reactors, liquid-liquid extraction, fluidized beds, continuous crystallization, leaching, reverse osmosis, gas permeation, absorption and stripping, and bioprocesses.

CHE 06404: Unit Operations Laboratory II 2 s.h.
Prerequisite: CHE 06.403
This course is a direct continuation of Unit Operations Laboratory I, examining a different series of unit operations but with similar goals and expectations. Students will again engage in pilot-scale process experimentation on various systems and relate theory and phenomenological principles to performance of a realistic industrial operation.
CHE 06405: Process Dynamics And Control 3 s.h.
Prerequisites: CHE 06314 and CHE 06315 and CHE 06316
This course provides an introduction to the dynamics, modeling and control of process systems. Topics studied will include: modeling analysis and application to control systems, dynamic behavior of processes, control objectives and benefits. Various aspects of feedback control will be emphasized: feedback loop, PID algorithm, tuning, performance, and applications. Enhancements to single-loop PID control; cascade control, and feed-forward control will be discussed along with special topics. Process control design case studies will be included.

CHE 06406: Chemical Plant Design 3 s.h.
Prerequisites: CHE 06405 and (CHE 06401 with a minimum grade of C+)
This course will focus in design strategy for process synthesis and analysis and economic decision making in the process design. The course explores the development of reactors, compressors, separators and heat exchangers. Cost diagrams and quick screening of process alternatives are utilized. The course will use computer-aided process design software for industrial cases.

CHE 06441: Process Safety 3 s.h.
Prerequisites: ENGR 01341 and CHE 06310 and CHEM 06100 or ENGR 01341 and CHE 06310 and CHEM 06105
This course presents the basic principles, guidelines, and calculations necessary for the safe design and operation of chemical plants and related manufacturing facilities. Topics include: toxics and human exposure, fires and explosions, vessel relief systems, hazard identification and risk assessment, source and dispersion models. Accident investigation is discussed along with a review of actual case histories.

CHE 06442: Fluid Flow In Processing And Manufacturing 3 s.h.
This course surveys fluid flow applications in the processing and manufacturing industries. It presents advanced flow concepts; multiphase flow, complex flow, and turbulence. Gas-solid fluidized bed technology and design. This course will analyze liquid-liquid and liquid-solid mixing systems.

CHE 06462: Bioprocess Engineering 3 s.h.
Prerequisites: CHEM 06100 and MATH 01130 or CHEM 06105 and MATH 01130
This course reviews the fundamentals and engineering of bioprocess engineering with emphasis on applying biotechnology to industrial processes. Essential aspects of biochemistry, microbiology and kinetics are presented. This course discusses bioreactor engineering, and recovery and purification processes. Processing applications of engineering kinetics and enzyme technology are included. Laboratory experiments and demonstrations will be integrated throughout the course.

CHE 06463: Green Engineering Of Chemical Processes 3 s.h.
Prerequisites: CHE 06314 and CHE 06316
This course evaluates process design techniques to minimize waste and by-products in the processing and manufacturing industries. Topics include: mass and heat recycling processes; technologies for process stream renovation, material reuse and recycling methods. Case studies of industrial applications are utilized.

CHE 06464: Advanced Separation Technology 3 s.h.
This course describes advanced separation processes not previously covered in Transfer Processes II and Separation Processes courses. Topics include: crystallization and precipitation; adsorption, chromatography and ion exchange; reverse osmosis, ultrafiltration, gas permeation and pervaporation. Commercial system design parameters and laboratory demonstrations will be included. An overview of other novel separation processes will be done.

CHE 06465: Advanced Design Of Reactors 3 s.h.
This course presents an overview of chemical reaction types and ideal reactors. Topics presented include: catalysis and catalytic reactors; analogies for real reactors; fluid flow and heat and mass transfer effects on chemical reactions and reactor design; numerical analyses and simulation of reacting systems; applications in the chemical industry.

CHE 06466: Polymer Processing 3 s.h.
Prerequisites: ENGR 01281 and CHE 06310
The course provides an introduction to the various aspects of polymer engineering starting with basic polymer properties, structure and function. The major topics covered are the formation of polymer systems and manufacturing techniques. Fabrication processes topics include coating, extrusion, and foams. The production of thin-films and membranes will focus on stretching, phase inversion, and hollow fiber spinning. Students will study application of polymeric materials engineering to various industries.
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<th>Course Code</th>
<th>Title</th>
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<tr>
<td>CHE 06468:</td>
<td>Principles Of Electrochemical Engineering</td>
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<td><em>Prerequisites: CHEM 06100 or CHEM 06105</em></td>
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<td>This course will focus on the fundamental</td>
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<td>principles of process electrochemistry.</td>
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<td>Basic principles of thermodynamics,</td>
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<td>kinetics and mass transfer as applied to</td>
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<td>of commercial applications in energy</td>
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<td>conversion and storage and electrolytic</td>
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<td>processes will be presented.</td>
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<td>CHE 06470:</td>
<td>Principles Of Air Pollution Control</td>
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<td><em>Prerequisites: CHEM 06100 or CHEM 06105</em></td>
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<td>This course introduces students to air</td>
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<td>pollution control theory. Students design</td>
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<td>air pollution control processes and specify</td>
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<td>equipment related to the control of</td>
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<td>particulate, gaseous and toxic air</td>
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<td>emissions. The chemistry required for</td>
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<td>pollution control process design is</td>
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<td>presented. The environmental impacts due</td>
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<td>both to controlling and not controlling</td>
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<td>emissions are considered. Students design</td>
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<td>control equipment, specify and</td>
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<td>troubleshoot control systems and predict</td>
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<td>the impacts for each major type of</td>
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<td>control system.</td>
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<td>CHE 06471:</td>
<td>Principles of Biomedical Control Systems</td>
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<td><em>Prerequisite(s): CHE 06405</em></td>
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<td>This course is an extension of Process</td>
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<td>Dynamics and Control (CHE 06405) focusing</td>
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<td>on the identification and study of</td>
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<td>biomedical control systems. Students will</td>
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<td>learn to identify components of</td>
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<td>physiological control systems and examine</td>
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<td>the origin of diseases at a systems level.</td>
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<td>Additional topics include the incorporation</td>
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<td></td>
<td>of artificial organs into existing</td>
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<td></td>
<td>physiological control systems,</td>
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<td>mathematical modeling of biological</td>
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<td>processes, and designing therapeutic</td>
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<td>strategies.</td>
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<td>CHE 06472:</td>
<td>Principles of Biomedical Processes</td>
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<td><em>Prerequisites: CHEM 06100 or CHEM 06105</em></td>
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<td>This course introduces students to</td>
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<td></td>
<td>chemical engineering fundamentals applied</td>
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<td>to biomedical systems. Students analyze</td>
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<td>and design biomedical processes. The basic</td>
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<td>biochemistry and physiology required for</td>
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<td>understanding of biomedical systems is</td>
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<td>presented. Basic principles of mass</td>
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<td>transfer, heat transfer, fluid flow, and</td>
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<td>chemical reaction are used to analyze or</td>
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<td>design drug delivery systems,</td>
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<td>pharmacokinetic models, the circulatory</td>
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<td>system, transport across cell membranes,</td>
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<td>and human and artificial organs.</td>
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<td>Laboratory experiments and demonstrations</td>
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<td>will be integrated throughout the course.</td>
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<td>CHE 06473:</td>
<td>Principles of Biomaterials Engineering</td>
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<td><em>Prerequisites: CHEM 06100 or CHEM 06105</em></td>
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<td></td>
<td>The goal of studying biomaterials is to</td>
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<td>understand how the body's natural tissues</td>
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<td>are organized on a compositional,</td>
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<td>structural, and properties basis. We also</td>
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<td>seek to understand how the body recognizes</td>
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<td>and responds to foreign materials, and</td>
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<td>combine this knowledge in order to</td>
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<td>successfully design implants that can be</td>
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<td>used to treat debilitating diseases.</td>
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<td>CHE 06474:</td>
<td>Fundamentals Of Particle Technology</td>
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<td><em>Prerequisites: CHEM 06100 or CHEM 06105</em></td>
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<td>This course introduces students to the</td>
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<td>chemical engineering functions of particle</td>
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<td>technology. Students analyze and design</td>
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<td>chemical industry processes involving</td>
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<td>particles. The basic chemistry of particle</td>
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<td>synthesis and manufacturing is presented.</td>
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<td>Principles of mass and heat transfer, fluid</td>
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<td>flow and chemical reaction kinetics are</td>
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<td>used to analyze a wide range of industrial</td>
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<td>processes involving particles. Processes</td>
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<td>involving fluidization, pneumatic</td>
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<td>conveying, multi-phase mixing and</td>
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<td>catalysis will be discussed.</td>
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<td>Laboratory experiments and demonstrations</td>
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<td>will be integrated throughout the course.</td>
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<td>CHE 06475:</td>
<td>Principles of Biopharmaceutical and</td>
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<td></td>
<td>Industrial Fluid Mixing</td>
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<td><em>Prerequisite(s): CHEM 06100 or CHEM 06105</em></td>
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<td>Students in this course will demonstrate</td>
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<td>the importance mixing of in both biotech-</td>
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<td>nology and the pharmaceutical industries.</td>
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<td>The design project in this class will</td>
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<td>include a product that requires multiple</td>
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<td>process steps involving multiple phases and</td>
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<td>complex liquids and chemical reactions.</td>
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<td>Students will apply single and multi-phase</td>
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<td>fluid dynamic to the design of an</td>
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<td>industrial process that includes equipment</td>
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<td>design. A major objective of the class is</td>
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<td>to develop equipment for the biotechnology</td>
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<td>and pharmaceutical industry.</td>
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<td>CHE 06476:</td>
<td>Principles Of Bioseparation Processes</td>
<td>3 s.h.</td>
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<td>This course will focus on the fundamental</td>
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<td>principles of bioseparation processes. The</td>
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<td>characteristics of bioseparations will be</td>
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<td>presented as applied to downstream</td>
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<td>processing in the pharmaceutical/biotech-</td>
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<td>nology and related industries. Theory and</td>
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<td>design of filtration, microfiltration,</td>
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<td>centrifugation, cell disruption, extraction,</td>
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<td>adsorption, chromatography, precipitation,</td>
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<td>ultrafiltration, crystallization, and drying</td>
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<td>will be presented as applied to biosystems.</td>
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<td>Commercial design considerations, such as</td>
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<td>sanitary design/sterilization, water</td>
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<td>quality, solvent recovery, waste disposal</td>
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<td>and biosafety will be reviewed.</td>
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</table>
CHE 06477: Fundamentals Of Engineering Process Analysis And Experimental Design
This course exposes students to advanced engineering applications of process analysis and experimental design. The course includes a multidisciplinary approach with theoretical background to support the course applications. Students will use advanced statistical and optimization techniques for process analysis and experimental design, process monitoring and quality control presently used in industry. The analysis and experimental design techniques presented in this course serve to optimize complex industrially relevant processes and make engineering design and calculations more effective. Applications from a wide range of industries will be presented including pharmaceutical, food, bulk and specialty chemicals, and petroleum industry applications.

CHE 06478: Tissue Engineering Fundamentals
Prerequisite(s): BIOL 01210 or BIOL 01211 or BIOL 01204
Tissue engineering is an expanding field that integrates principles of biology and engineering for the development of tissue substitutes and artificial organs. This course, which utilizes a combined lecture-laboratory approach, will review embryology, cell culture techniques, stem cell biology, cell signaling, cell development and differentiation, biocompatibility, tissue organization and function, biomaterial synthesis/characterization, and structure-function relationships in tissue engineering scaffolds.

CHE 06479: Industrial Process Pathways
Prerequisites: CHE 06316
This course will study chemical reaction mechanisms that play crucial roles in the chemical industry. Fundamentals of reaction thermochemistry and reaction kinetics will be discussed. Students will learn to construct mechanistic models of complex, multi-reaction systems, and to apply these models to the solution of practical problems such as yield optimization.

CHE 06480: Project Optimization In Engineering
This course will overview strategies for planning and directing long-term engineering projects. Topics will include project organization, project scheduling, allocation of resources, project optimization and financial analyses.

CHE 06481: Advanced Process Analysis
This course will examine advanced topics in process analysis including: process consistency, identification of optimal process based on economic analysis, process documentation including flowsheets and budgets, replacement analysis for processing equipment, and rationing limited resources between competing projects.

CHE 06482: Principles Of Food Engineering
Prerequisites: MATH 01141, CHEM 06100 and CHEM 06105 or MATH 01131
This course introduces students to chemical engineering fundamentals applied to food processing systems. Students analyze and design food engineering processes. The basic chemistry required for understanding of food systems is presented. Basic principles of mass transfer, heat transfer, fluid flow, chemical reaction, process control, and mixing are used to analyze or design food production systems. Computer simulations will be used for the design of food processing systems. Laboratory experiments and demonstrations will be integrated throughout the course.

CHE 06483: Principles Of Engineering Exercise Physiology
Prerequisites: MATH 01236 and CHEM 06100
This course introduces students to chemical engineering fundamentals applied to physiologic systems, primarily during exercise. The basic biochemistry and physiology required for understanding these systems is presented. Basic principles of mass transfer, heat transfer, fluid flow, thermodynamics, and chemical reaction are used to analyze the human metabolic system, respiratory system, cardiovascular system, and thermal system. The interrelationships of these systems will be investigated, and their dynamic response to exercise will be studied. Laboratory experiments will be conducted throughout the course. This course is jointly taught with the Department of Health and Exercise Science.

CHE 06484: Fundamentals Of Controlled Release
Controlled release systems are designed to provide delivery of an agent at a pre-determined rate for an extended period of item. Controlled release offers several advantages over traditional methods of formulation and administration: maintenance of effective concentrations for a sustained period, less total agent required, cost effectiveness, convenience and compliance. This course introduces students to chemical engineering fundamentals applied to controlled release systems. Basic principles of materials, mass transfer, heat transfer, fluid flow and chemical reactions are used to analyze and design controlled release systems. Applications to pharmaceutical, agricultural, and food industries will be explored. Laboratory experiments and demonstrations will be integrated throughout the course.
CHE 06485: Fundamentals Of Engineering Quality Control 3 s.h.
Prerequisites: MATH 01235 and MATH 01236
This course will expose students to the fundamental principles of engineering quality control and process controller design. Students will learn basic control charting techniques and process capability assessment. The course will include process monitoring and control techniques routinely used in industry and expose students to the relevance of these techniques in the design and development of processes and process safety and risk assessment. The course will include numerous examples from a wide range of engineering applications and industries.

CHE 06486: Membrane Processes 3 s.h.
Prerequisites: CHEM 06105 and MATH 01131 or MATH 01141 or CHEM 06100 and MATH 01131
Principles of membrane processes: reverse osmosis, ultrafiltration, microfiltration, electrodialysis, pervaporation, gas permeation, and their application to traditional and emerging fields. Membrane materials and structure. Mass transfer and design aspects for both liquid and gas separation systems.

CHE 06490: Special Topics In Chemical Engineering: Topic 3 to 4 s.h.
Prerequisites: (MATH 01131 or MATH 01140) and (CHEM 06100 or CHEM 06105)
This course presents chemical engineering topics related to recent developments in industrial practice or research. May be repeated.

CHEM 05100: Preparatory College Chemistry 2 s.h.
This course familiarizes students with elementary concepts of chemistry and relevant math skills. The students will learn fundamental chemical principles which will enable them to succeed in Chemistry I, a first course in college chemistry. Selected topics of this course include: Standards and Measurement, Classification and Properties of Matter, Nomenclature of Inorganic Compounds, Quantitative Composition of Compounds, Chemical Equations, Atomic Theory and Periodic Classification of Elements. There are no prerequisites for this course. This course will be offered during the second quarter of the semester.

CHEM 05102: Chemistry Of Everyday Life (Lecture And Lab) 4 s.h.
A one-semester course for the non-science major presenting an overview of General, Organic and Biochemistry. Emphasis is upon the application of chemical principles to industrial processes, environmental concerns and biologically interesting reactions. This course cannot be applied for credit toward a science major nor used as prerequisite for CHEM 06101.

CHEM 05301: Chemistry In The Environment 3 s.h.
Prerequisites: MATH 03305 or ENST 94101 or CHEM 05102
This course relates the fundamentals of chemistry learned in the prerequisite course to the natural processes found in nature. It also examines how chemistry is related to environmental concerns in our modern world. The course is not designed for majors in science and engineering.

CHEM 05310: Independent Study-Chem 1 to 6 s.h.

CHEM 05330: Forensic Chemistry (Lecture And Lab) 4 s.h.
This course considers the application of physical and chemical methods to the identification and analysis of the physical evidence associated with a crime. The course emphasizes those areas of chemistry and to a lesser extent physics, biology and geology useful for determining the evidential value of crime scene and related evidence. The laboratory experience emphasizes the application of physical and chemical analytical procedures to the examination of materials that would likely be considered evidence in a crime.

CHEM 05430: Advanced Topics In Chemistry 3 s.h.
This course covers special topics in individual areas of chemistry. Specific prerequisites are determined by the nature of the course when it is announced.

CHEM 05435: Cooperative Experience In Chemistry 3 s.h.
The goal of this course is to provide the student with the opportunity to participate in a research/development experience in a non-academic setting. The course may be taken as an advanced elective by students with Junior or Senior status for a maximum of 3 s.h. credit. It may be elected to fulfill the research requirement of the BS in Chemistry major. It can be taken more than once.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>CHEM 05440</td>
<td>Research I</td>
<td>3 s.h.</td>
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<tr>
<td>CHEM 05441</td>
<td>Research II</td>
<td>3 s.h.</td>
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<tr>
<td>CHEM 05450</td>
<td>Seminar I</td>
<td>1 s.h.</td>
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<tr>
<td>CHEM 06100</td>
<td>Chemistry I (Lecture And Lab)</td>
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<td>CHEM 06101</td>
<td>Chemistry II (Lecture And Lab)</td>
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<tr>
<td>CHEM 06105</td>
<td>Advanced College Chemistry I (Lecture And Lab)</td>
<td>4 s.h.</td>
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<tr>
<td>CHEM 06106</td>
<td>Advanced College Chemistry II (Lecture And Lab)</td>
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<td>CHEM 06300</td>
<td>Advanced Inorganic Chemistry</td>
<td>4 s.h.</td>
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<td>CHEM 06301</td>
<td>Inorganic Chemistry</td>
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<tr>
<td>CHEM 06400</td>
<td>Advanced Inorganic Chemistry Lecture</td>
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<tr>
<td>CHEM 06401</td>
<td>Advanced Inorganic Chemistry Laboratory</td>
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This course provides individual laboratory investigation of a topic outside the scope of existing courses; laboratory and conferences are required. The results of investigation will be presented in a written and oral report.

This course is a continuation of CHEM 05440.

In this course students give oral reports on topics chosen from the current chemical literature. Students must attend local professional meetings.

This course presents the basic principles involved in the study of chemistry. It emphasizes modern theories and laws used in the understanding of the structures and reactions of the elements and compounds and also includes gas laws, stoichiometry, and solution theory.

This course is a continuation of CHEM 06100. It covers topics: equilibria, including acids and bases, complexes, and sparingly soluble compounds, thermodynamics, kinetics, electrochemistry, and solution theory. Descriptive inorganic chemistry is also covered.

This course is designed for the engineering student and other well-prepared science majors. The course covers the material in both Chemistry I & II (CHEM 06100 and CHEM 06101), including theories and laws used in the understanding of the structures and reactions of the elements and compounds, atomic structure, stoichiometry, thermodynamics, gas laws, states of matter, solution theory, chemical kinetics, chemical equilibrium, acid base chemistry, precipitation reaction, redox reactions and electrochemistry. It is not recommended for those who do not have a declared science or engineering major.

This course covers a review of CHEM 06105, and topics such as quantum chemistry, molecular structure and bonding, crystal structures, absorption spectroscopy, coordination compounds, organic functional groups and reactions. Included also is in depth coverage of topics such as electrochemistry, equilibrium, kinetics, descriptive chemistry and selected industrial applications.

This course studies concepts and models of inorganic chemistry. It explains molecular geometries and other physical and chemical properties on the basis of the several chemical bonding theories and with reference to the periodic table. Students study both main group and transition element chemistries. The laboratory component emphasizes the synthesis and characterization of inorganic compounds.

This course covers the basic concepts and models of inorganic chemistry. The course encompasses the study of various elements in the periodic table along with their components. Students study the descriptive chemistry of both main group and d-block transition elements.

This course covers concepts and models of inorganic chemistry. It encompasses molecular geometries and other physical and chemical properties on the basis of the several chemical bonding theories and with reference to the periodic table. Students study the chemistry of both main group and d-block transition elements.

This course covers concepts and models of inorganic chemistry in the laboratory setting. Students study both main group and transition element chemistries. The laboratory component emphasizes the synthesis and characterization of inorganic compounds.
CHEM 07200: Organic Chemistry I (Lecture And Lab) 4 s.h.  
*Prerequisites: CHEM 06101 or CHEM 06106*

This course studies the chemistry of carbon compounds and their properties, structures and reactions. It emphasizes the study of the principle classes of aliphatic and aromatic compounds, which in conjunction with selected experiments, gives an understanding of the mechanisms of organic reactions. Required for science majors.

CHEM 07201: Organic Chemistry II (Lecture And Lab) 4 s.h.  
*Prerequisites: CHEM 07200*

This course is a continuation of CHEM 07200. Required for science majors.

CHEM 07202: Industrial Organic Chemistry 3 s.h.  
*Prerequisite(s): CHEM 07200, Restricted to engineering majors.*

Industrial Organic Chemistry will cover common topics found typically in Organic Chemistry II (CHEM 07201) but will focus on the utility of this chemistry in an industrial setting. Highlights include: polymer synthesis, mineral sources of chemicals, renewable sources of chemicals, green chemistry, aromatic materials, coal, organic color chemistry, detergents, food, pharmaceutical chemistry, and others.

CHEM 07203: Organic Chemistry II for Biomedical Sciences 4 s.h.  
*Prerequisite: CHEM 07201*

This course studies the chemistry of carbon compounds and their properties, structures and reactions in biochemical framework. It emphasizes the study of the principle classes of aliphatic and aromatic compounds, which in conjunction with selected experiments, gives an understanding of the mechanisms of organic reactions. Specifically designed for Biomedical Sciences and Engineering majors. This course is a continuation of CHEM 07201.

CHEM 07348: Biochemistry (Lecture And Lab) 4 s.h.  
*Prerequisites: CHEM 07201 or CHEM 07202*

This course deals with chemical compounds and reactions important to the functioning of biological systems and includes a discussion of the metabolic pathways for energy production and biosynthesis.

CHEM 07357: Chemical Biology 3 s.h.  
*Prerequisites: CHEM 07201 or CHEM 07202*

The goal of this course is to describe how chemistry is applied to biochemical and biological systems to answer specific questions. It examines the use of small, synthetic molecules that are used as probes of biochemical function as well as how to design experiments using these molecules. The course also encompasses the use of purely synthetic compounds as functional or structural mimics of biological molecules. The methods and techniques used to measure designed interactions will also be discussed.

CHEM 07399: Bioinformatics - Biochemical Applications 3 s.h.  
*Prerequisites: (CHEM 07201 or CHEM 07202) and BIOL 01106*

This introductory course in bioinformatics covers the application of modern computational methods to the fundamentals of molecular biology (protein and DNA structure, transcription and translation). The biochemical tools of molecular biology will be discussed. Methods of aligning DNA sequences will be studied in relation to mutations, phylogenetic tree analysis, forensic science, and genetic diseases. Algorithms for protein structure prediction, microarray technology and gene expression will be explored. Computer based lab exercises will support the topics presented.

CHEM 07405: Introduction To Polymer Chemistry 3 s.h.  
*Prerequisites: CHEM 07201 or CHEM 07202*

This course presents an introduction to the topic of polymer chemistry. The subject matter, by its nature, crosses all the lines of specialization within chemistry. The structure, properties and synthesis of polymeric materials are covered in accordance with the recommendations of the joint polymer education committee of the American Chemical Society.

CHEM 07407: Advanced Biochemistry Lecture 3 s.h.  
*Prerequisite: CHEM 07348 and CHEM 09250*

This lecture course deals with complex biochemical processes involving the interaction of numerous classes of biomolecules. Specifically the course focuses on the interplay of proteins, lipids, carbohydrates, and nucleic acids in the cellular response and adaptation to the environment, both locally in the cell and of the organism as a whole. The course relies on both traditional descriptions of biochemical processes and the inclusion of primary literature sources to analyze experimental data, explain methodology, and introduce cutting edge concepts.
CHEM 07408: Advanced Biochemistry 4 s.h.
Prerequisites: BIOL 14348 or CHEM 07348
This course provides an in-depth study of the principles involved in biological processes. It emphasizes the significance of biochemical reactions and regulations as well as mechanisms. A thorough elucidation of the structure, function and mechanism will be presented. The overall strategy of living systems will be illustrated. The laboratory experiments will provide exposure to representative procedures and some important modern techniques.

CHEM 07409: Advanced Biochemistry Laboratory 2 s.h.
Prerequisites: CHEM 07407 (may be taken concurrently) and CHEM 09250
This laboratory course deals with isolation and characterization of molecules from biochemical systems. The fundamentals and applications of chromatographic, electrophoretic, and spectroscopy techniques applied to biological molecules are taught through laboratory projects.

CHEM 07410: Medicinal Chemistry 3 s.h.
Prerequisites: CHEM 07201
A study of the biochemical principles and metabolic pathways with particular emphasis on pharmaceutical applications and biotechnology. This course will focus on the molecular mechanisms of drug action and chemical basis of drug therapy. Current methods used to study medicinal chemistry including recombinant DNA, combinatorial chemistry and bioinformatics will be reviewed. A 3-D molecular modeling of drug targets and drug design will be integrated throughout the course. Clinical trials of drug case study are included.

CHEM 07431: Advanced Topics In Biochemistry 3 s.h.
This course covers special topics in individual areas of biochemistry. Specific prerequisites are determined by the nature of the course when it is announced.

CHEM 07442: Biochemical Research Methods 3 s.h.
Prerequisite: CHEM 07407
This course provides individual laboratory investigation of a topic beyond the scope of existing courses based on current research in the department. The results of the research project will be presented in a written and oral report.

CHEM 07464: Advanced Organic Chemistry I (Lecture) - Wi 3 s.h.
Prerequisites: ENGL 01112, CHEM 07201 and PHYS 08400
This course provides an advanced presentation of the major classes of organic chemistry reactions, giving major emphasis to the detailed mechanisms of such reactions. Modern organic theory is included. This course is generally offered in fall every other year. A writing intensive course.

CHEM 07470: Organic Spectroscopic Analysis (Lecture And Lab) 3 s.h.
Prerequisites: CHEM 07201 or CHEM 07202
This is a laboratory course with class discussion on the separation and identification of organic compounds. It uses both classical and instrumental techniques in compound structure determination. Lectures emphasize interpreting IR, NMR and mass spectra. This course is not offered annually.

CHEM 07472: Organometallic Chemistry 3 s.h.
Prerequisite: CHEM 07201 OR CHEM 07202
This course covers the chemistry of organometallic compounds and corresponding applications in diverse fields such as organic synthesis, pharmaceutical industry, and the petroleum chemical industry. Major topics of discussion include the study of physical and chemical properties, characterization, and preparation of organic compounds. The basic reactivity patterns and the reaction mechanisms will also be introduced. The course is ideal for Chemistry, Biochemistry, Chemical Engineering, and Biology majors.

CHEM 07475: Polymer Synthesis 4 s.h.
Prerequisites: CHEM 07201 and PHYS 08400
This course provides an in-depth study of the procedures, techniques and theoretical aspects of polymer synthesis. Reaction mechanisms including kinetic and thermodynamic considerations will be studied. The topic of polymer synthesis will be examined from raw material sources through product usage. The laboratory experiments will provide exposure to representative procedures and techniques.

CHEM 07478: Polymer Characterization 4 s.h.
Prerequisites: CHEM 07201 and PHYS 08400
This course provides an in-depth study of the procedures, techniques and theoretical aspects of polymer characterization. Major topics include molecular weight determinations, polymer solutions, viscoelasticity and bulk properties. The laboratory experiments will provide exposure to representative procedures and techniques with emphasis on molecular weight determination and thermal methods.
CHEM 07492: Pharmaceutical Chemistry 3 s.h.
Prerequisites: CHEM 07201 OR CHEM 07202
This course covers the structure, properties, and preparation, of organic and inorganic pharmaceutical drugs. Some of the topics that will be discussed include natural source derived organic pharmaceuticals, inorganic pharmaceuticals, and their properties under biological conditions, etc. This course is ideal for Chemistry, Biochemistry, Biology, and Chemical Engineering majors.

CHEM 08305: Biophysical Chemistry 4 s.h.
Prerequisites: (BIOL 01101 or BIOL 01106) and MATH 01131 and (PHYS 02201 or PHYS 00222), CHEM 07201 and CHEM 09250
This course covers the topics of physical chemistry and their applications in biochemistry. Topics include thermodynamics, kinetics and spectroscopy.

CHEM 08400: Physical Chemistry I (Lecture) 3 s.h.
Prerequisites: (MATH 01131 OR MATH 01141) AND (PHYS 02201 OR PHYS 00222 OR PHYS 02203 OR PHYS 00211 OR CHE 06302)
This course deals with the problems of the fundamental principles underlying physical chemistry. It gives major emphasis to thermodynamics, kinetics and quantum mechanics. It also includes spectroscopy, group theory and statistical mechanics. MATH01.230 recommended.

CHEM 08401: Physical Chemistry II (Lecture) 3 s.h.
Prerequisites: PHYS 08400 or CHEM 08400
This is a continuation of CHEM08.400

CHEM 08402: Physical Chemistry Laboratory I 2 s.h.
Prerequisites: CHEM 09250 and CHEM 08400
Laboratory work in this course is designed to illustrate the principles of physical chemistry.

CHEM 08403: Physical Chemistry Laboratory II 2 s.h.
Prerequisites: CHEM 08401
This course is a continuation of CHEM08.402

CHEM 08410: Survey Of Molecular Modeling Methods 3 s.h.
Prerequisites: (CHEM 07201 OR CHEM 07202) AND (MATH 01130 OR MATH 01140) Recommended: CHEM 09250 and MATH 01131
This survey course emphasizes the applications of molecular modeling theory and simulations in chemistry and biochemistry. The course will present to students a broad and in-depth knowledge of different modeling concepts and methodologies, and provide students opportunities to apply modern computational software to investigate molecular structures, chemical reactions, and biomolecular processes such as enzyme catalysis and protein conformational changes, etc. This course is ideal for Chemistry, Biochemistry, Bioinformatics, and Pharmaceutical Science students.

CHEM 09250: Quantitative Analysis (Lecture And Lab) 4 s.h.
Prerequisites: CHEM 06101 or CHEM 06106
This course provides lecture and laboratory experience in classical methods of gravimetric and volumetric analyses as well as electrical and spectroscopic analyses.

CHEM 09410: Instrumental Methods (Lecture And Lab) 4 s.h.
Prerequisites: CHEM 08401 and CHEM 09250
This course covers the use of instrumental methods in the solution of chemical problems. It stresses both the theoretical and practical aspects of obtaining and interpreting data. Among the instruments considered are visible, UV, IR, NMR, AA, ICP, Raman and Mass Spectrometers as well as electrical and chromatographic techniques.

CHEM 09420: Supramolecular Chemistry 3 s.h.
Prerequisites: CHEM 07201 or CHEM 07202 and CHEM 08400 or CHEM 08305 or CHEM 06106
The course is about concepts, structures, functions, and applications of supramolecular molecular systems. The supramolecular systems discussed in this course include surface assembled monolayer and multilayers, L-B films, host-guest molecular recognition systems, liquid crystals, and nanoclusters. Application of supramolecular chemistry includes clinic diagnostics, drug design and drug delivery, biomimic, and nanofabrication.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHYS 08305</td>
<td>Biophysical Chemistry</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CEE 08101</td>
<td>Introduction to Infrastructure</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CEE 08102</td>
<td>Engineering Graphics</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CEE 08103</td>
<td>Field Surveying</td>
<td>2 s.h.</td>
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<tr>
<td>CEE 08203</td>
<td>Surveying And Engineering Graphics</td>
<td>4 s.h.</td>
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<tr>
<td>CEE 08301</td>
<td>Civil Engineering Materials</td>
<td>2 s.h.</td>
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<tr>
<td>CEE 08305</td>
<td>Civil Engineering Systems</td>
<td>3 s.h.</td>
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<tr>
<td>CEE 08311</td>
<td>Environmental Engineering I</td>
<td>3 s.h.</td>
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<tr>
<td>CEE 08312</td>
<td>Sustainable Civil &amp; Environmental Engineering</td>
<td>3 s.h.</td>
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<tr>
<td>CEE 08342</td>
<td>Water Resources Engineering</td>
<td>3 s.h.</td>
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</table>

**PHYS 08305: Biophysical Chemistry**

*Prerequisites: BIOL 01101, MATH 01131, PHYS 02201, CHEM 07201 and CHEM 09250*

This course covers the topics of physical chemistry and their applications in biochemistry. Topics include thermodynamics, kinetics and spectroscopy. This course also provides laboratory experience in physical methods that apply to biological systems.

**CEE 08101: Introduction to Infrastructure**

*Prerequisite(s): None*

The civil infrastructure of the US is deteriorating rapidly. The quality of the infrastructure directly affects the economy and security of the US. The next generation of civil and environmental engineers needs to be more skilled and more able to create a sustainable infrastructure. The goal of this course is to introduce freshmen civil and environmental engineers to the built infrastructure including bridges, buildings, foundations, dams, canals, roads, intersections, water treatment plants, wastewater treatment plants, and solid waste landfills. Students will be exposed to case studies in each area of infrastructure and will prepare final team oral and written reports on specific infrastructure cases.

**CEE 08102: Engineering Graphics**

The course deals with the creation and interpretation of engineering drawings, maps, and plans using engineering software programs.

**CEE 08103: Field Surveying**

The course deals with the measurement of existing and man-made land profiles. The tasks performed include measurements of drainage areas, distances, angles, and elevations; closing traverses; topographic surveys; and highway alignments.

**CEE 08203: Surveying And Engineering Graphics**

The course deals with the measurement of existing and man-made land profiles (surveying), and the creation and interpretation of engineering drawings, maps and plans (engineering graphics). The tasks performed include the measurements of drainage areas, distances, angles, and elevations; closing traverses; topographic surveys; and highway alignments. Additional tasks include creation and interpretation of engineering plans, drawings, and maps using appropriate engineering software programs.

**CEE 08301: Civil Engineering Materials**

*Prerequisites: ENGR 01272 with a grade of C- or better or ENGR 01273 with a grade of C- or better.*

This course deals with asphalt pavement, concrete pavement, and structural concrete including: the testing and analysis of aggregates, asphalt binders, cement and admixtures; the design of asphalt pavement, concrete pavement, and structural concrete; and the testing and analysis of asphalt pavement specimens, concrete pavement specimens, and structural concrete specimens. The course includes appropriate laboratory experiments.

**CEE 08305: Civil Engineering Systems**

*Prerequisites: MATH 01131 or MATH 01140*

The course deals with the theories and principles of civil engineering systems as applied to real-world analysis and design problems. The course covers four important areas of civil engineering systems: linear programming, project scheduling, probability and statistics, and engineering economics. The course includes appropriate computer applications.

**CEE 08311: Environmental Engineering I**

*Prerequisite: CHEM 06105 with a grade of C- or better and (Corequisite ENGR 01341 or prerequisite ENGR 01342)*

This course deals with topics in principles of environmental engineering, including ecosystems, water and wastewater treatment and design, and sludge/residuals management.

**CEE 08312: Sustainable Civil & Environmental Engineering**

*Prerequisites: CEE 08311 with C- or better grade.*

This course deals with topics in solid and hazardous waste and air pollution engineering, including regulations, fundamentals, evaluation, management, prevention, treatment and disposal.

**CEE 08342: Water Resources Engineering**

*Prerequisite: (ENGR 01341 with a grade of C- or better or ENGR 01342 with a grade of C- or better) and (MATH 01235 with a grade of C- or better or MATH 01231 with a grade of C- or better)*

This course deals with the analysis and design of basic water flow structures using the principles of hydraulics and hydrology. The topics covered in hydrology include the analysis of rainfall, runoff, groundwater flow, and stream flow. The topics covered in hydraulics include the analysis and design of hydraulic structures such as weirs, open channels, culverts, and storm sewers. The course includes appropriate laboratory experiments and computer applications.
CEE 08351: Geotechnical Engineering 3 s.h.
Prerequisite: (ENGR 01341 with a grade of C- or better or ENGR 01342 with a grade of C- or better) and (ENGR 01272 with a grade of C- or better or ENGR 01273 with a grade of C- or better) and CEE 08301
The course deals with the basic principles of geo-technical engineering including soil properties and soil mechanics. The study of soil properties includes soil gradation, void ratio, porosity, water content, degree of saturation, specific gravity, soil consistency, soil classification. The study of soil mechanics includes permeability, capillarity, seepage and stresses in soils. The course includes appropriate laboratory experiments.

CEE 08361: Transportation Engineering 3 s.h.
Prerequisite: CEE 08103
The course deals with the analysis, design, construction, operation, maintenance, rehabilitation, and efficiency of transportation systems and mass transit systems. The course includes a study of the impact on transportation systems caused by sociological, geographical, economic and environmental factors. The course also includes appropriate field measurements and computer applications.

CEE 08382: Structural Engineering 3 s.h.
Prerequisite: ENGR 01272 with a grade of C- or better or ENGR 01273 with a grade of C- or better
This course deals with the analysis of simply-supported and continuous structures using classic and matrix analysis methods including integration, moment-area, conjugate beam, virtual work, force, and stiffness methods. Trusses, beams and frames are considered in the course.

CEE 08383: Analysis And Design Of Steel Frames 3 s.h.
Prerequisites: CEE 08382
This course deals with the analysis and design of structural frames. Analysis using the stiffness method is emphasized. The design of frame members includes the design of steel beams and beam-columns, connections for steel frames, bracing and composite steel/concrete members. Steel joists and decking are also introduced. The course includes appropriate computer applications.

CEE 08404: Engineering Estimating For Seniors 3 s.h.
Prerequisites: ECON 04102
The course deals with the development of engineering estimates for civil engineering projects and project components including labor, materials, and equipment. Total project costs including direct and indirect costs, field and home-office costs, and contingency are covered. Also covered are the various types of civil engineering estimates including piles and cofferdams, wellpoints and earthdrilling, water and sewer systems, road and highway pavements, concrete buildings and bridges. The course includes appropriate computer applications.

CEE 08412: Environmental Treatment Process Principles 3 s.h.
Topics in Fundamentals of Physiochemical Processes in Environmental Engineering such as Absorption, Coagulation/Flocculation, Filtration, Sedimentation, Disinfection, Ion Exchange, Chemical Oxidation, Corrosion and Membranes.

CEE 08413: Introduction To Environmental Management 3 s.h.
This course deals with integrated environmental management issues and methodologies with a global perspective. Topics include environmental decision-making from a socio-economic and environmental standpoint, environmental data collection, analysis, and management, techniques for environmental assessment and feasibility case studies. The course is intended to give students an understanding of current environmental issues and tools for analysis of data for environmental management. The issues are examined from the worldwide perspectives of science, engineering, business, and society.

CEE 08422: Site Remediation Engineering Principles 3 s.h.
This course deals with topics with site remediation engineering. Topics include site characterization, site safety, modeling site conditions, conducting feasibility studies, and designing remediation systems, such as pump and treat, stabilization, containment, treatment walls, natural attenuation, enhanced bioremediation, phytoremediation, oxidation, soil flushing, and soil vapor extraction.

CEE 08431: Solid And Hazardous Waste Management 3 s.h.
The course deals with solid and hazardous waste sources, regulations and management; engineering principles; treatment and disposal methods; design of landfills; recycling; toxicology principles; and risk assessment. The course includes appropriate laboratory experiments and computer applications.
### Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CEE 08432</td>
<td>Pollutant Fate And Transport Principles</td>
<td>3 s.h.</td>
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<tr>
<td></td>
<td>This course deals with topics in characteristics and properties of organic pollutants, aquatic chemistry, transport mechanisms for pollutants (Absorption, Retardation, Attenuation, Volatilization, Biodegradation), groundwater (Properties, Flow Equations, Transport in Porous Media) and mathematical modeling.</td>
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<tr>
<td>CEE 08433</td>
<td>Principles Of Integrated Solid Waste Management</td>
<td>3 s.h.</td>
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<td>The course deals with the theories and principles of integrated solid waste management as applied to real-world analysis and design problems. The course covers the design of facilities and programs, such as landfills, composting facilities, transfer stations, collection programs, and drop-off centers, and planning of integrated systems for municipalities and counties. Computer applications are included.</td>
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<tr>
<td>CEE 08436</td>
<td>Sustainable Technologies For Built Environments</td>
<td>3 s.h.</td>
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<td></td>
<td><strong>Prerequisites:</strong> MATH 01130 or MATH 01140</td>
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<td></td>
<td>This course introduces engineering and non-engineering students to innovative technologies that must be employed to sustain the human species on Earth by reducing the impact of urban communities. After an introduction to Sustainability, technologies will be considered in five areas related to the built environment: environmental protection, energy, water, shelter, and transportation. The course is designed to increase students’ understanding of sustainable technologies and ability to incorporate such technologies into programs to improve sustainability.</td>
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<tr>
<td>CEE 08437</td>
<td>Sustainable Buildings</td>
<td>3 s.h.</td>
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<td><strong>Prerequisite:</strong> Any 100 level Math Course</td>
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<td></td>
<td>This course introduces engineering and non-engineering students to innovative designs that can be employed to better sustain the human species on Earth by reducing the impact of buildings. After an introduction to the impact of buildings on sustainability, technologies will be considered in five areas: sustainable sites, water, energy, materials, and indoor environmental quality.</td>
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<tr>
<td>CEE 08443</td>
<td>Advanced Water Resources Engineering For Seniors</td>
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<td><strong>Prerequisites:</strong> CEE 08442</td>
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<td></td>
<td>The fundamental theme of the course is the study of advanced topics in water resources engineering including the analysis and design of advanced hydraulic structures, hydraulic similitude and modeling, wave action, and advanced hydrology. The course includes appropriate laboratory experiments and computer applications.</td>
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<tr>
<td>CEE 08444</td>
<td>Principles Of Hydraulic Design</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites:</strong> CEE 08442</td>
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<td></td>
<td>The fundamental theme of the course is the design and analysis of structures for controlling and conveying water in both the built and natural environment. Topics covered vary from year to year based upon instructor and student interests. Past topics have included open channel flow design, dams and spillways sanitary and storm sewers, culverts, pumping stations, turbomachinery, and hydraulic similitude and modeling.</td>
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<tr>
<td>CEE 08445</td>
<td>Principles Of Environmental Fluid Mechanics</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites:</strong> CEE 08442</td>
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<td></td>
<td>The fundamental theme of the course is the engineering study of fluid flow in the environment. Advanced topics in water resources engineering are explored, with content varying based upon instructor and student interests. Past topics have included open channel flow, hydrology, fish passage at hydraulic structures, sediment transport, mixing in natural water bodies, and water quality modeling. The course includes appropriate laboratory and/or field experiments and computer applications.</td>
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<tr>
<td>CEE 08446</td>
<td>River Engineering Principles</td>
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<td><strong>Prerequisite:</strong> CEE 08442</td>
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<td></td>
<td>This course presents the theory and analytical techniques for the design and analysis of engineering projects that control or convey water in open channel systems. Topics include sediment transport, design of hydraulic structures, river restoration, and computer modeling.</td>
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<tr>
<td>CEE 08447</td>
<td>Watershed Engineering Principles</td>
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<td><strong>Prerequisite:</strong> CEE 08442</td>
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<td></td>
<td>This course presents the theory and analytical techniques for the design and analysis of stormwater management projects. Topics include environmental law, stormwater mitigation structures, rainfall-runoff analysis, limnology, and computer modeling.</td>
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<td>Course Code</td>
<td>Course Title</td>
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<td>CEE 08452</td>
<td>Foundation Engineering For Seniors</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites:</strong> CEE 08351 with C- or better grade.</td>
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<td>The fundamental theme of the course is the analysis and design of structural building and bridge foundations based on advanced principles of soil mechanics. These advanced principles of soil mechanics include compressibility, shear strength, and bearing capacity. The types of foundations analyzed and designed include spread footings and pile foundations. The course includes appropriate laboratory experiments and computer applications.</td>
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<tr>
<td>CEE 08453</td>
<td>Earth Retaining Systems For Seniors</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites:</strong> CEE 08351 with C- or better grade.</td>
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<tr>
<td>The fundamental theme of the course is earth retaining systems including advanced principles of soil mechanics and analysis and design of earth retaining systems. The advanced principles of soil mechanics covered include lateral soil pressure and slope stability. The analysis and design of earth retaining systems includes slopes, embankments, retaining walls, and other systems. The course includes appropriate laboratory experiments and computer applications.</td>
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<tr>
<td>CEE 08463</td>
<td>Transportation Planning, Demand, And Data Analysis</td>
<td>3 s.h.</td>
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<td><strong>Prerequisite:</strong> CEE 08361</td>
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<tr>
<td>This course introduces students to the general field of transportation planning including travel demand analysis and data collection methods. Statistical data collection and analysis methods are discussed. Examples using the traditional four-step planning process illustrate common planning procedures. Computer applications are included.</td>
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<tr>
<td>CEE 08464</td>
<td>Elements Of Transportation Engineering Of Seniors</td>
<td>3 s.h.</td>
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<td><strong>Prerequisite:</strong> CEE 08361</td>
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<tr>
<td>The fundamental theme of the course is the study of advanced topics in highway design and analysis, signalized and un-signalized intersection design, forecast travel demand modeling and transportation planning. Topics covered vary from year to year based upon instructor and student interests. This course also includes field measurements and computer applications.</td>
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<td>CEE 08465</td>
<td>Pavement Analysis And Evaluation</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites:</strong> CEE 08361 and CEE 08301</td>
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<td>The fundamental theme of this course is the engineering study of the mechanical behavior of flexible and rigid pavements. These include understanding of the pavement response and field performance data, and design of flexible and rigid pavements. The course will include appropriate computer applications.</td>
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<tr>
<td>CEE 08473</td>
<td>Advanced Structural Analysis For Seniors</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites:</strong> CEE 08382</td>
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<td>The course deals with the matrix method of structural analysis. The topics covered include structural members, member joints, member end conditions, local and global structural matrices, condensation of global structural matrices, static structural analysis, and dynamic structural analysis. The course will include appropriate computer applications.</td>
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<tr>
<td>CEE 08474</td>
<td>Structural Mechanics</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> CEE 08382 or ME 10241 and MATH 01236</td>
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<td>This course presents the foundations of structural mechanics. Topics include: stress and strain tensors; equilibrium; compatibility and consecutive relationships; strain energy density; energy methods for solid bodies, frames and trusses; and techniques for approximate solutions of problems.</td>
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<tr>
<td>CEE 08475</td>
<td>Fatigue And Fracture</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites:</strong> CEE 08382 or ME 10241 and MATH 01236</td>
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<td>This course presents the theory and analytical techniques to design structural components for cyclic loading. Topics include linear elastic fracture mechanics; S-N fatigue; fatigue crack growth; and algorithms for simulating three-dimensional crack propagation.</td>
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<tr>
<td>CEE 08481</td>
<td>Reinforced Concrete Design</td>
<td>3 s.h.</td>
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<td><strong>Prerequisites:</strong> CEE 08382</td>
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<tr>
<td>The course deals with the topic of reinforced concrete analysis and design. The analysis and design of reinforced concrete structural members includes types of concrete and steel, fundamentals of reinforced concrete behavior, analysis and design of rectangular and T-beams and slabs including flexural and shear behavior, development of reinforcement, deflections and crack control. Analysis and design of short reinforced concrete columns is also included. The course includes appropriate computer applications.</td>
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</table>
CEE 08483: Advanced Steel Design For Seniors 3 s.h.
Prerequisite: CEE 08383
This course addresses advanced topics not covered in a first course in steel design including topics such as design of plate girders, connections, and structural frames and bracing.

CEE 08484: Prestressed Concrete For Seniors 3 s.h.
Prerequisites: CEE 08481
The fundamental theme of this course is the analysis and design of prestressed concrete members for highway bridges, parking structures, office buildings, and industrial buildings. Topics covered include prestressed construction applications and materials, flexural analysis of pretensioned and post-tensioning beams, bending and shear design, loss of prestress, deflection, and composite beams. The course includes appropriate computer applications.

CEE 08485: Advanced Reinforced Concrete For Seniors 3 s.h.
Prerequisites: CEE 08481
The fundamental theme of the course is the design and analysis of advanced reinforced concrete structures and structural components including two-way slabs, footings, retaining walls, shear walls, and slender columns.

CEE 08486: Bridge Engineering For Seniors 3 s.h.
Prerequisites: CEE 08382 and CEE 08383
The fundamental theme of the course is the analysis and design of modern steel highway bridges utilizing the bridge code of the American Association of State Highway and Transportation Officials. The topics covered include bridge loads, load combinations, design methods, reinforced concrete deck slabs, steel wide-flange stringer bridges, steel composite wide-flange stringer bridges, continuous bridge spans, steel composite plate-girder bridges, elastomeric bearing connections, steel fixed bridge connections, and steel roller bridge connections. The course includes appropriate computer applications.

CEE 08487: Design Of Masonry And Wood Structures 3 s.h.
Prerequisite: CEE 08382
This course provides the fundamentals of structural design using masonry and wood. Topics include materials properties, flexure, axial loading, and lateral load resisting systems. This course builds upon previously acquired fundamental concepts of structural analysis and design.

CEE 08490: Civil Engineering Practice 1 s.h.
Prerequisites: CEE 08305
This sequence of seminars and workshops is designed to give civil engineering students meaningful exposure to several critical topics related to the real-world practice of civil engineering. Topics covered will include bid specifications and documents, contracts and performance bonds, engineering estimates and cost engineering, engineering management and project scheduling, and professional ethics and responsibilities.

CEE 08491: Civil Engineering Design Project I 2 s.h.
Prerequisites: CEE 08361 and CEE 08362
This is the first course in a sequence of two courses that will provide a meaningful design experience for teams of undergraduate civil engineering students under the direction of two or more faculty advisers. The sequence will include a thorough literature search and review, the development of a clear and concise problem statement, consultations with other faculty and industry experts, and the derivation of publishable results. The project will culminate in a final written report and oral presentation.

CEE 08492: Civil Engineering Design Project II 2 s.h.
Prerequisites: CEE 08491
This is the second course in a sequence of two courses that will provide a meaningful design experience for teams of undergraduate civil engineering students under the direction of two or more faculty advisers. The sequence will include a thorough literature search and review, the development of a clear and concise problem statement, consultations with other faculty and industry experts, and the derivation of publishable results. The project will culminate in a final written report and oral presentation.

CEE 08493: Selected Topics In Civil And Environmental Engineering 1 to 3 s.h.
This course is designed to introduce students to emerging topics in the Civil and Environmental Engineering field. Consent of the instructor is necessary, and prerequisites are determined by the nature of the topic.
Introduction to Communication Studies introduces students to the field of Communication Studies by examining the various disciplines within the field. Such disciplines include interpersonal communication, communication ethics, health communication, family communication, organizational communication, intercultural communication, rhetorical studies, media studies, and others. The course also looks at the similarities and differences among the disciplines.

This course trains students in the fundamentals of public speaking, including study and practice of speech preparation and speech delivery. The goal is to enable the student to participate effectively in oral communication, as a student, professionally and as a citizen.

This course studies the impact on our daily lives of television, radio, films, magazines and newspapers. Students examine how the media influence politics, purchases, and entertainment, and how the media affect the culture in shaping beliefs and attitudes. It discusses how each of the media operates and what each accomplishes. This course examines the gap between real life and "mediated" reality.

This is a writing intensive course that studies the impact on our daily lives of television, radio, films, magazines, and newspapers. Students examine how the media influence politics, purchases, and entertainment, and how the media affect the culture in shaping beliefs and attitudes. It discusses how each of the media operates and what each accomplishes. This course examines the gap between real life and "mediated" reality.

This course provides comparative study of film and literature. Students learn the critical vocabulary of literature and film and enhance their understanding of both art forms. The course covers American and foreign works.

Students explore the basic theories and concepts of interpersonal communication research. Some areas to be covered include perception and social cognition, the relationship of culture to interpersonal communication, self-perception and communication, interpersonal systems, sex/gender and interpersonal communication, and interpersonal communication contexts (i.e., family, friendship, romance).

This course makes students aware of the relationship between language and human behavior and of the use and abuse of verbal and non-verbal language. It emphasizes meaning, the classification and abstraction processes and the application of semantic principles to the language of literature, politics, advertising and prejudice.

This is a writing intensive course that makes students aware of the relationship between language and human behavior and of the use and abuse of verbal and non-verbal language. It emphasizes meaning, the classification and abstraction processes and the application of semantic principles to the language of literature, politics, advertising and prejudice.

This course focuses on the principles and theories of communication as they relate to the small group process. It deals with the barriers to effective group discussion and leadership with corresponding remedial measures, as well as an application of small group research as it pertains to hypothetical and actual small group situations.

This is a writing intensive course that focuses on the principles and theories of communication as they relate to the small group process. It deals with the barriers to effective small group discussion and leadership with corresponding remedial measures as well as an application of small group research as it pertains to hypothetical and actual small group situations.
Course Descriptions

CMS 04250: Communication Theory 3 s.h.
Prerequisites: COMP 01112 or ENGR 01201 or permission of instructor
This sophomore-level course acquaints students with current theories as they apply to a variety of communication environments. Drawing upon a wealth of timely research, students study theories relating to interpersonal, small group, organizational, public and mass communication. The course presents theories through readings as well as extensive class discussion.

CMS 04255: Nonverbal Communication 3 s.h.
This course will introduce students to the theories and applications of nonverbal communication across different contexts, such as interpersonal, health, mass media, work, and intercultural. The topics studied will include messages of and about the human body; approach-avoidance signals of space, gaze, and touch; facial expressions; and the overlapping channels of voice and gesture.

CMS 04260: Organizational Communication Theory And Research 3 s.h.
Prerequisites: Comp 01112 or ENGR 01201
Organizational Communication theory and research introduces students to the basics of organizational communication. The class will focus on how scholars and researchers study and understand the communication patterns and relationships that go on in organizations. Students will be asked to consider a variety of perspectives and theories of organizational communication while comparing them to each other and to their own experiences as organizational actors.

CMS 04270: Persuasion And Social Influence 3 s.h.
This course surveys theories and theorists dealing with the area of persuasion, beginning with the Classical Age and extending through present-day empirical research. It emphasizes applying the theories to practical situations and goals.

CMS 04290: Rhetorical Theory 3 s.h.
Prerequisites: COMP 01112 or ENGR 01201
Rhetorical Theory introduces students to the concept of rhetoric and how it has been theorized from antiquity to the present. The course provides students with a systematic history of rhetorical theory and spotlights significant theorists such as Plato, Aristotle, Cicero, Blair and Burke. Students will explore how both ancient and contemporary theories of rhetoric apply to contemporary society.

CMS 04300: Ethical Issues In Human Communication 3 s.h.
Prerequisites: 58 credits required
Ethical Issues in Human Communication will address numerous ethical conundrums in our communicative activities. Specific ethical systems provide the groundwork for application to interpersonal, organizational, intercultural, political and rhetorical communication contexts. Case studies and class discussions will be used to encourage students to develop their own ethical frameworks for communication contexts.

CMS 04305: Advanced Public Speaking 3 s.h.
Prerequisites: CMS 06202 or CMS 04205 or permission of instructor
Students analyze the special problems of advanced speech composition and delivery through discussion and platform appearance. In addition to strengthening students' command of the fundamentals of public speaking, this course gives attention to rhetorical style and specialized types of speaking situations. This course may not be offered annually.

CMS 04310: Images Of Gender In Popular Culture 3 s.h.
Prerequisites: COMP 01112 or ENGR 01201
This course examines the concept of gender as it is rhetorically constructed in contemporary popular culture. Students will analyze how various cultural texts (such as advertisements, popular songs, television shows, or video games) communicate what it means to be masculine and feminine in U.S. culture. The course will examine how these images have changed historically and how depictions of race, class, and sexual identity also contribute to our understandings of gender in popular culture.

CMS 04315: Participatory Media 3 s.h.
Prerequisites: COMP 01112
This course examines the social, economic and political implications of the use of participatory media, which enable audience participation in the production of mediated messages. Students taking this course will study network theory, the historical roots of the participatory culture, collective action and social networking, convergence, and the changing modes of media production. Students will also study legal and social justice issues related to these evolving trends in media use.
CMS 04320:  Communicating Gender  3 s.h.
Prerequisites: COMP 01112 or ENGR 01201
Communicating Gender will consider the theory, research, and experience of the intersection between gender and
communication. Focus will be given to the ways in which gender, as a concept and set of expectations, is created through
communication. Students will also consider their own individual experiences as gendered communicators while studying the
varying perspectives of communication studies scholars with regard to this phenomenon.

CMS 04325:  Linguistics  3 s.h.
Students study the nature of human language by examining four major components: phonology, semantics, syntax, and
morphology. Linguistics principally emphasizes linguistic universals, characteristics which all human languages share.
Students discuss dialect formation, first-language acquisition in children, and animal communication systems. Students also
compare modern linguistic theories.

CMS 04330:  International Media Communication  3 s.h.
This course examines systems of communication from a global perspective, analyzing the historical, cultural, and
philosophical influences that have shaped those systems. The course enables students to analyze the systemic effects of
globalization, new technologies, regulation, efforts of various groups to control development of communication structures,
inequities in communication infrastructure, so-called cultural imperialism, and the linkage between international media and
diplomacy, economics, and politics.

CMS 04335:  Introduction To Survey Research  3 s.h.
Prerequisites: 60 credits required
This course provides students with an understanding of research in general and survey research in particular. Theory is
applied through emphasis on survey design, sampling, interviewing, tabulating and analysis of data. Students learn the "whys"
and "hows" of public opinion polling by doing an actual survey.

CMS 04340:  Family Communication  3 s.h.
Prerequisites: COMP 01112 or ENGR 01210
This course focuses on how scholars and researchers study and understand the communication patterns and relationships
in families. Family types, roles, and ongoing communication processes are discussed. Students are asked to consider a variety
of perspectives and theories of family communication while comparing them to each other and to their own experiences as
family members.

CMS 04345:  Argumentation And Debate  3 s.h.
Prerequisites: CMS 06202 or CMS 04205 or permission of instructor
This course focuses on the principles and techniques of argumentative speaking and formal debating. Students study types
and tests of evidence and reasoning, and develop skills in logical persuasion, cross examination, intensive research, case
preparation, and critical listening. This course may not be offered annually.

CMS 04350:  Communication Studies Research Methods  4 s.h.
Prerequisites: CMS 04200 and CMS 01300 or CMS 01220
This course introduces the student to quantitative and qualitative research methods used in communication studies.
Students will learn about research procedures, identification and definition of variables, sampling methods, and basic
statistical methods such as discourse analysis, correlational analysis, parametric and non-parametric tests, and descriptive
techniques. Students will become familiar with current communication studies research and will design and complete a
research project.

CMS 04355:  Communication Studies Internship I  3 s.h.
Prerequisites: 75 credits required and CommunicationStudies Major with 2.5 Major GPA
Under professional supervision in the field, students practice theories and skills learned in the classroom. No part is a
prerequisite for another; order is not a factor in selecting this course.

CMS 04356:  Communication Studies Internship II  3 s.h.
Prerequisites: 75 credits required and CommunicationStudies Major with 2.5 Major GPA
Under professional supervision in the field, students practice theories and skills learned in the classroom. No part is a
prerequisite for another; order is not a factor in selecting this course.

CMS 04357:  Communication Studies Internship III  6 s.h.
Prerequisites: 75 credits required and CommunicationStudies Major with 2.5 Major GPA
Under professional supervision in the field, students practice theories and skills learned in the classroom. No part is a
prerequisite for another; order is not a factor in selecting this course.
CMS 04360: Intercultural Communication 3 s.h.
**Prerequisites:** COMP 01112 or ENGR 01201

Intercultural Communication will consider the theory, research, and experience of intercultural communication. The nature of culture and its relationship to communication will be discussed. Students will be asked to consider their own experiences as intercultural communicators while studying the varying perspectives of communication studies scholars with regards to this phenomenon.

CMS 04365: Research Practice In Communication Studies 1 to 3 s.h.
**Prerequisites:** Completion of 75 credits required, approval of Communication Studies Department advisor.

Research Practicum in Communication Studies allows students to apply the theories and methodology learned in Communication Studies courses to a research partnership with a member of the department faculty. Students earn 1 credit for every 40 hours of work, with most practica implemented for 3 credit hours. Students keep a detailed log of working hours, prepare a portfolio representative of their practicum experience, write an analytical critique of the practicum, and are evaluated by their faculty partner as well as the practicum supervisor. To receive approval for this course, students must have a minimum 2.5 grade point average.

CMS 04370: Political Communication 3 s.h.
**Prerequisites:** COMP 01112 or ENGR 01201 and POSC 07100 or POSC 07110 or POSC 07200

Political Communication investigates the many and varied understandings of how "the political" functions symbolically in contemporary society. Most broadly the course further develops students' appreciation for the inherently political relationship between language and meaning. More specifically, it focuses on the intersections of public, political discourse, representations and manifestations of the tensions between liberalism and democracy, the performance of citizenship, and civic responsibility.

CMS 04375: Special Topics In Communication 3 s.h.

This course provides students with an opportunity to thoroughly investigate specific areas critical to the field of communication. Course topics change as new trends develop and as student interest necessitates scheduling. Topics are selected on the basis of timeliness and the availability of expert staff. General topics are announced as the course is scheduled. This course is not offered annually.

CMS 04380: Health Communication 3 s.h.
**Prerequisites:** COMP 01112 or ENGR 01201

Health communication will address the topic of health as it is enacted and defined in communication. Specific topics to be discussed are doctor-patient interaction, social and cultural issues of health, mass media representations of health and healthy behaviors, along with communication within health organizations.

CMS 04385: Constructing Health 3 s.h.

Constructing Health will address the various communicative means by which the concept and structure of "health" is socially defined. Students taking this course will study the constructs of health, medicine, the body, and normalcy as enacted in rhetorical, mediated, organizational and interpersonal communication examplars. The relationship between power and these constructions is also interrogated.

CMS 04390: Rhetorical Criticism 3 s.h.
**Prerequisites:** CMS 06202

This course surveys ancient to modern theories of speech criticism to develop defensible criteria for evaluating speeches, social movements, and non-oratorical events. Students study and evaluate past and present public speeches by applying various rhetorical standards. This course may not be offered annually.

CMS 04405: Independent Study - Communication Studies 1 to 3 s.h.
**Prerequisite:** department permission

This course provides students with an opportunity to work independently on specialized communication topics under the guidance of a faculty member. Generally, this course may not be substituted for any course offered by a department in the College of Communication. In addition to departmental permission, approval by the dean is also required.

CMS 04450: Seminar In Communication Studies - Wi 3 s.h.
**Prerequisite(s):** (CMS 06330 or CMS 04350), with a grade of C- or higher and senior standing in the Communication Studies major

This writing intensive course provides a seminar experience in areas of communication that are not part of the regular course offerings. Examples of potential topics include Friendship, Rhetoric of Music, Romantic Relationships, and Presidential Campaigns.
CMS 04455: Senior Transition 1 s.h.
Prerequisite(s): CMS 04450 and Communication Studies major
This course asks Communication Studies majors to gather representative works from their major and reflect on them in light of the department’s goals. It also provides preparation for post graduation work in their field through specific discussion of graduate school and job attainment.

CS 01080: Computer Literacy 3 s.h.
This course teaches students how to use microcomputers effectively. Students learn about computer hardware and how it functions with an operating system and application software. Computer file management, data storage, multimedia, computer architecture, local area networks, the Internet, data security, and obtaining information from a library database are included. There is extensive hands-on use of windows, word processing, spreadsheets, and the Internet. This is a Basic Skills course; credit is not applied toward graduation.

CS 01102: Introduction To Programming 3 s.h.
This course acquaints students with the logical structure of a computer, the algorithmic formulation of problems, and a modern high-level programming language. Extensive programming experience is included in the course. Proficiency equivalent to Basic Algebra II (MATH01.199) is expected for this course.

CS 01104: Introduction To Scientific Programming 3 s.h.
This course emphasizes algorithmic solutions of problems. The syntax of the programming language is also studied, as well as the writing of structured code. Proficiency equivalent to Basic Algebra II.

CS 01105: Web Literacy 3 s.h.
This is an introductory course on the world wide web, exposing how it works, and showing students how to use it appropriately. This course teaches students to create and modify basic web pages with markup languages and style directives, and how to embed non-text information such as video, images, and sound. The principles of publishing websites on the Internet and the process by which a page is delivered to end users will also be covered.

CS 01190: Introduction To Computer Game Modeling 3 s.h.
This is an introductory computer games modeling course which examines the basics of computer game design and visual effects. Students will use graphics software modeling packages to create characters and visual effects, and to develop a computer game idea, including storyline and plots. Elementary programming techniques may also be taught.

CS 01200: Computing Environments 3 s.h.
Students will be exposed to a variety of computing environments. The course will include extensive hands-on a variety of software applications. Topics covered will include user tools, user programming techniques, application packages, and networking communications. Students will gain an understanding of the principles of computing which will enable them to adapt to future technological developments. A solid and fundamental understanding of computers and current operating systems, word processing and spreadsheet software are essential to this course.

CS 01205: Computer Laboratory Techniques 3 s.h.
Prerequisites: CS 04113 or CS 04103
A practical introduction to the hardware, software and networks used by the Computer Science Department. A foundation in programming using the language or languages required for intermediate and advanced computer science courses will be included.

CS 01210: Introduction To Computer Networks And Data Communications 3 s.h.
Prerequisites: CS 01200
This is an introductory computer networks course for students that are not majoring or minoring in computer science. This course will examine the basics of data communication and computer networks and will cover such topics as history and evolution of data communications, layered network architectures, physical and data link layers, introduction to internetworking, the Internet, IP protocols, basics of TCP and UDP transmission protocols, standard network applications and basics of network security, network utility software, and configuring local area networks in a popular operating system.

CS 01211: Principles Of Information Security 3 s.h.
Students will be exposed to the spectrum of security activities, methods, technologies, and threats. This course will cover a range of key topics in the area of information and computer security including inspection and protection of information assets, detection of and reaction to security threats, taxonomy of security threats, and concentrating on issues in computer and operating systems security, principles of network security, and basics of cryptography.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>CS 01395</td>
<td>Topics In Computer Science</td>
<td>1 to 4 s.h.</td>
</tr>
<tr>
<td>CS 01400</td>
<td>Independent Study</td>
<td>1 to 4 s.h.</td>
</tr>
<tr>
<td>CS 04103</td>
<td>Computer Science And Programming</td>
<td>4 s.h.</td>
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<tr>
<td>CS 04110</td>
<td>Introduction To Programming Using Robots</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>CS 04112</td>
<td>Java For Object Oriented Programmers</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>CS 04113</td>
<td>Introduction To Object Oriented Programming</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CS 04114</td>
<td>Object Oriented Programming And Data Abstraction</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CS 04115</td>
<td>C++ For Java Programmers</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>CS 04140</td>
<td>Enterprise Computing I</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>CS 04141</td>
<td>Enterprise Computing II</td>
<td>3 s.h.</td>
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</tbody>
</table>

This course enables the faculty to offer courses in advanced topics which are not offered on a regular basis. Prerequisites will vary according to the specific topic being studied.

This course emphasizes programming methodology, algorithms and simple data structures. A programming language rich enough to allow easy implementation of data structures is studied. Prior programming experience in any programming language is expected for this course.

This course teaches fundamental programming skills centered in the context of robot programming. Students will program small robots to perform a variety of tasks. In addition to learning a sophisticated programming language, students will gain skills in design techniques and experience working in teams to build complex systems.

This course is designed to extend the material presented in Enterprise Computing I by applying object oriented design and software engineering principles to develop a small scale enterprise system. This course will acquaint students with advanced features and data structures. Students will also understand basic graphical programming, event driven programs, exception handling and web programming.
## Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS 04171:</td>
<td>Creating Android Applications</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisite(s): None</td>
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<tr>
<td></td>
<td>This course is designed for students who want to start developing mobile applications on Android platforms and understand the basic concepts of Computer Science. The course will start with the basics of Android programming by covering the most recent version of Android and understanding its development framework. Students will then learn to develop feature-rich Android applications using the MIT App Inventor Integrated Development Environment and learn the basic &quot;Big Ideas&quot; of Computer Science such as, algorithmic thinking, abstractions, logic, flow control, and data representation, storage and manipulation.</td>
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<tr>
<td>CS 04222:</td>
<td>Data Structures And Algorithms</td>
<td>4 s.h.</td>
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<tr>
<td>Prerequisite(s): CS 04.114 (C- or better) and MATH 03.160 or MATH 03.150</td>
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<td></td>
<td>This course features programs of realistic complexity. The programs utilize data structures (string, lists, graphs, stacks, trees) and algorithms (searching, sorting, etc.) for manipulating these data structures. The course emphasizes interactive design and includes the use of microcomputer systems and direct access data files.</td>
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<tr>
<td>CS 04225:</td>
<td>Data Structures For Engineers</td>
<td>3 s.h.</td>
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<td>Prerequisites: CS 04103 and MATH 01236</td>
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<tr>
<td></td>
<td>The course features programs of realistic complexity. The programs utilize data structures (strings, lists, graphs, stacks) and algorithms (searching, sorting, etc.) for manipulating these data structures. The course emphasizes interactive design and includes the use of microcomputer systems and direct access data files.</td>
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<tr>
<td>CS 04233:</td>
<td>Structured Design And Programming Using Cobol</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: CS 01102 or CS 0413 or CS 04103</td>
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<tr>
<td></td>
<td>In this course students learn to write structured programs in COBOL. It includes a description of the language and a comparison with other languages. It emphasizes structured modular programming and documentation such as hierarchy charts (HIPO) and flow charts. Prior programming experience in any programming language is expected for this course.</td>
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<tr>
<td>CS 04234:</td>
<td>Advanced Structured Design And Programming Using Cobol</td>
<td>3 s.h.</td>
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<td>Prerequisites: CS 04233</td>
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<td></td>
<td>This course prepares students for professional proficiency in the COBOL programming language, and includes structured and modular programming, top-down design, hierarchy charts and flow diagrams, table handling, sorting, searching, report preparation, character manipulation, sequential and ISAM files, programming standards and the transaction-master update problem.</td>
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<tr>
<td>CS 04305:</td>
<td>Web Programming</td>
<td>3 s.h.</td>
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<td>Prerequisites: CS 01205 and CS 04222</td>
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<td></td>
<td>This course introduces the student to some of the underlying software components of the World Wide Web as it currently exists. Topics include markup languages, scripting languages, programming languages such as Java, and other software components of the Web.</td>
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<tr>
<td>CS 04315:</td>
<td>Programming Languages</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Prerequisites: (CS 04222 or CS 04225) and (CS 06205 or/and CS 06.205)</td>
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<td></td>
<td>A study of the fundamental principles underlying the design of programming languages. Students will study two or more languages from contrasting programming paradigms such as Functional, Object-Oriented, Logical, or Concurrent.</td>
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<tr>
<td>CS 04325:</td>
<td>Programming In Ada</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: CS 04222</td>
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<td></td>
<td>Students will gain an understanding of the major concepts of the programming language Ada. They will learn how the constructs of the Ada language can be used to produce software which is portable, readily maintained and modified, and efficiently designed. Students will do several programming projects in Ada, and will be exposed to problems in the design of real-time systems and concurrent programming.</td>
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<tr>
<td>CS 04327:</td>
<td>Power Java</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: CS 04222</td>
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<td></td>
<td>This advanced programming course explores the power of the Java programming language. It looks at the advanced features provided in Java: reflection and proxies, interfaces and inner classes, graphics programming, the event listener model, event handling, Swing user interface components, graphical user interface design, object serialization, multithreading, network programming, remote objects and remote method invocation, collection classes, database connectivity, and JavaBeans.</td>
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</tr>
</tbody>
</table>
Course Descriptions

CS 04380:  Object Oriented Design  3 s.h.
Prequisites: CS 07340
This course will introduce important concepts, such as inheritance and polymorphism, which are crucial tools needed for crafting object-oriented solutions to real-world problems. Design patterns that commonly occur in design situations will be covered. A formal notation for describing and evaluating object-oriented designs such as the Unified Modeling Language (UML) will be taught. Students will apply the concepts to design and implement object-oriented solutions to one or more reasonably sized real-world problems.

CS 04390:  Operating Systems  3 s.h.
Prequisites: CS 04222 and CS 06205
The course concentrates on the design and functions of the operating systems of multi-user computers. Its topics include time sharing methods of memory allocation and protection, files, CPU scheduling, input-output management, interrupt handling, deadlocking and recovery and design principles. The course discusses one or more operating systems for small computers, such as UNIX.

CS 04391:  Concurrent Programming  3 s.h.
Prequisites: CS 04390
Introduces the motivation for and fundamental concepts of concurrent programming. Topics include processes, threads, context switching, atomic instructions/actions, shared data, race conditions, critical sections, mutual exclusion, synchronization, locks, barriers, semaphores, monitors, shared-memory multiprocessors, and an overview of distributed programming (distributed-memory multicomputers, interprocess communication, message passing, remote procedure call, rendezvous). The course includes developing concurrent programming skills by using a language that supports the multithreaded paradigm.

CS 04392:  System Programming And Operating System Internals  3 s.h.
Prequisites: CS 04390 and CS 01205
This course examines the system kernel of a modern operating system including the file structure and implementation, the process structure and process scheduling, memory management policies, and the I/O subsystem. This course also covers the system call interface to the system kernel and various inter-process communication schemes.

CS 04394:  Distributed Systems  3 s.h.
Prequisites: (CS 06205 and CS 04222) or (ECE 09242 and CS 04225)
This course will introduce students to the Distributed System, a network of (possibly autonomous) computers that cooperatively solve single problems or facilitate parallel execution of related tasks. Key topics of study include Distributed Systems Architecture, Distributed Resource Management, and Accessing Distributed Resources. Students will participate in algorithm, process and system design for distributed systems.

CS 04400:  Computer Science - Senior Project  3 s.h.
Prequisites: CS 04315 and CS 07340
This is an advanced programming course in which students work on large-scale individual or team programming projects and make a formal presentation on their work. The course discusses program development, methodologies and strategies.

CS 04401:  Compiler Design  3 s.h.
Prequisites: CS 04315 and CS 07210
This course presents theory of compiler design, syntax-directed translation, and code generation. Students design a compiler for a subset of a high-level programming language.

CS 04430:  Database Systems: Theory And Programming  3 s.h.
Prequisites: CS 04222
This course focuses on the design of DBMS and their use to create databases. The course covers both the theoretical concepts and the implementation aspects of database systems with a special emphasis on relational database systems, SQL, programming (in a modern programming language such as C++ or Java) using a real database Application Programming Interface (such as JDBC or ODBC)

CS 06205:  Computer Organization  3 s.h.
Prequisites: (CS 04113 or CS 04103) or (MATH 03160 or MATH 03150)
This course provides an introduction to computer organization. Students are exposed to the register level architecture of a modern computer and its assembly language. The topics include machine level data representation, von Neumann architecture and instruction execution cycle, memory hierarchy, I/O and interrupts, instruction sets and types, addressing modes, instruction formats and translation.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CS 06310:</td>
<td>Principles Of Digital Computers</td>
<td>3 s.h.</td>
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<td>Corequisites: CS 06311 Prerequisites: CS 06205</td>
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<td></td>
<td>This course provides an introduction to the fundamentals of computer hardware systems. The topics include digital logic, combinational circuits, sequential circuits, memory system structure, bus and interconnection structure, computer arithmetic and the ALU unit, I/O system structure, hardwired control unit, microprogrammed control unit, and alternative computer architectures. This course is not open to students who have taken CS06.370 Digital Design and Lab.</td>
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<tr>
<td>CS 06311:</td>
<td>Digital Computer Laboratory</td>
<td>1 s.h.</td>
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<td>Corequisites: CS 06310 Prerequisites: CS 06205</td>
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<td>This lab course provides the student with hands-on experience in the design and implementation of digital components. State-of-the-art systems are used to design, test, and implement digital circuits: Combinational circuits, sequential circuits, registers, counters, datapath, arithmetic/logic units, control units, and CPU design. This course is taken concurrently with Principles of Digital Computers.</td>
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<tr>
<td>CS 06390:</td>
<td>Introduction To Systems Simulation And Modeling</td>
<td>3 s.h.</td>
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<td></td>
<td>Prerequisites: (CS 01102 or CS 01105 or CS 01110 or CS 04103 or CS 04113 or CS 04140) and (Math 01130 or Math 01140)</td>
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<td>The students in this course will understand the fundamentals of and have practical experience with system modeling and simulation. Course topics include: the Monte Carlo simulation technique, discrete event simulation algorithms and tools, and principles of mathematical modeling, queuing theory, input modeling, output analysis, and verification and validation of a simulation model. The students in this course will learn to use a commercial simulation software tool and will conduct a simulation study in an engineering field.</td>
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<tr>
<td>CS 06410:</td>
<td>Data Communications And Networking</td>
<td>3 s.h.</td>
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<td>Prerequisites: CS 07340 and STAT 02290</td>
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<td>Students in this upper-division course will study the principles of data communications and important network architectures and protocols. Its topics include: the advantages of networking, major network architectures, protocol reference models and stacks, the Data Link Layer, the Network Layer, the Transport Layer, and the Internet. Additional topics may include: local, metropolitan and wide area networks; wireless, telephone and cellular networks; network security; and network programming. Students complete a networking team project.</td>
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<tr>
<td>CS 06412:</td>
<td>Advanced Computer Architecture</td>
<td>3 s.h.</td>
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<td>Prerequisites: CS 06310</td>
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<td>This is an advanced course in computer architecture designed to expand the knowledge gained by students in the Principles of Digital Computers course. The topics include various performance enhancement techniques such as DMA, I/O processor, cache memory, multiport memories, RISC, pipelining, and various advanced architectures such as high-level language architecture, data-flow architecture, and multiprocessor and multi-computer architectures. This course also allows detailed examination of one or two contemporary computers.</td>
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<tr>
<td>CS 06415:</td>
<td>Wireless Networks, Protocols And Applications</td>
<td>3 s.h.</td>
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<td>Prerequisites: CS 06410</td>
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<td>This course prepares students to understand wireless networks systems, and the underlying communications technologies that make them possible. The course covers descriptive material on wireless communications technologies, and important deployed and proposed wireless networks and systems. Wireless system performance and Quality of Service capabilities are addressed. Students will prepare and deliver technical presentations on state-of-the-art topics in wireless networks and systems.</td>
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<tr>
<td>CS 06416:</td>
<td>Tcp/IP And Internet Protocols And Technologies</td>
<td>3 s.h.</td>
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<td>Prerequisites: CS 06410</td>
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<td>This is an advanced computer networking course that will expand students knowledge received in the Data Communications and Networking course. This course will examine operation of the TCP/IP protocol as well as design and architecture of the Internet. This course will cover such topics as: Medium access protocols, address resolution protocols, Internet Protocol (IP), Quality of Service, Transport Protocol, and congestion control mechanisms. This course will also include selected topics on network security and network management. Students will prepare and deliver technical presentations on state-of-the-art research topics in the Internet.</td>
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<td>CS 06420:</td>
<td>Embedded Systems Programming</td>
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<td>Prerequisites: CS 04390 and CS 06310 and CS 06311</td>
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<td>Embedded software is used in almost every electronic device. This course deals with software issues that arise in embedded systems programming. Important concepts covered in this course will include device programming interfaces, device drivers, multi-tasking with real-time constraints, task synchronization, device testing and debugging, and embedded software development tools such as emulators and in-circuit debuggers. These concepts will be applied to design and implement embedded software for one or more modest-sized embedded systems.</td>
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CS 06471: Principles of Network Security
Prerequisite: CS 06410
This course examines the fundamentals of network security and cryptography. The material covered in this course includes such topics as cryptographic systems necessary for security, public key infrastructure, principles of data integrity, authentication, and key management, Internet architecture and TCP/IP protocol suite, application layer security, secure sockets layer and transport layer security protocols, IPSec and distributed denial of service attacks, designing secure network protocols, wireless security, firewalls and intrusion detection systems, and others. Students will prepare and deliver technical presentations on state-of-the-art research topics in the network security.

CS 07210: Foundations of Computer Science
Prerequisite(s): C- or better in (MATH 03160 or MATH 03150) and one of the following: CS 01102, CS 04103, CS 01104 or CS 04113
This course provides an introduction to the theoretical foundations of computer science, including finite automata, context-free grammars, Turing machines, and formal logic.

CS 07310: Robotics
Prerequisites: (CS 04222 and MATH 01210) or (CS 04225 and ENGR 01202 and MATH 01236)
This course provides an introduction to the fundamentals of robotics. Students will study robot manipulators and mobile robots, robot sensors, and robot cognition. Students will also gain experience programming in small groups, and programming in a domain where noisy and imprecise data is commonplace.

CS 07320: Software Engineering Laboratory
Prerequisite: concurrent enrollment in CS 07321
This lab is designed for students who register for CS 07.321 Software Engineering I and wish to learn how to develop and structure their deliverables, as well as how to use software development tools, under faculty guidance and supervision. Real-world projects will often be provided.

CS 07321: Software Engineering I-Writing Intensive
Prerequisites: (CS04.222 or CS 04.225) and (COMP 01.112 or ENGR 01.201) and (CMS 06.202 or ENGR 01.202)
An introduction to the discipline of Software Engineering. Students will explore the major phases of the Software Lifecycle, including analysis, specification, design, implementation, and testing. Techniques for creating documentation and using software development tools will be presented. Students will gain experience in these areas by working in teams to develop a software system. Proficiency in programming is expected of the students entering this course.

CS 07322: Software Engineering II-Writing Intensive
Prerequisite: CS 07321
Students will apply their knowledge from Software Engineering to develop an advanced software system, working in teams. The project will be taken through each of the major software development phases and student teams will create appropriate deliverables for each phase. Advanced modern software engineering topics such as critical systems, real-time systems, formal specification and validation, and project management will be covered.

CS 07340: Design And Analysis Of Algorithms
Prerequisites: CS 04222 and CS 07210
In this course, students will learn to design and analyze efficient algorithms for sorting, searching, graphs, sets, matrices, and other applications. Students will also learn to recognize and prove NP-Completeness.

CS 07350: Computer Cryptography
Prerequisites: CS 07210, CS 04222
This course introduces students to the principles and practices which are required for secure communication: cryptography, cryptanalysis, authentication, integrity, and digital certificates. Mathematical tools and algorithms are used to build and analyze secure cryptographic systems with computers. Social, political, and ethical aspects of cryptography are also covered.

CS 07351: Cyber Security: Fundamentals, Principles and Applications
Prerequisite(s): CS 04222 and CS 06205
This course exposes students to the principles of cyber-security and will introduce a wide range of security activities, methodologies, and procedures. The topics covered in the course include fundamental concepts of computer security, principles of cryptography, software security and trusted systems, network security as well as other topics.
Course Descriptions

CS 07360: Introduction To Computer Graphics 3 s.h.
Prerequisites: (MATH 01210 or MATH 01235) and CS 07340
This junior/senior level course covers such topics as fundamentals of graphics devices; use of graphics language/packages; windowing and clipping; geometrical transformation in 2- and 3-D; raster display algorithms; hidden line and surface elimination; animation.

CS 07370: Introduction To Information Visualization 3 s.h.
Prerequisites: MATH 01210 or MATH 01236
This is a junior/senior level course that introduces basic elements of Information Visualization. Topics covered include graphics programming, information visualization general principles, visualization techniques for 1-dimensional, 2-dimensional, and N-dimensional information, graph visualization, visualization techniques for image and digital libraries, as well as for the World Wide Web, interactivity, and focus-content techniques. This course also includes the implementation of techniques presented in lecture. Students are encouraged to devise new techniques, implement them, and determine their effectiveness. Students will be required to implement and document a large software project related to information visualization.

CS 07380: Introduction To Computer Animation 3 s.h.
Prerequisites: (MATH 01210 or MATH 01236) and (PHYS02200 or PHYS 00220)
This is a junior/senior level course that takes a look at Computer Animation from a programmers perspective. It will investigate the theory, algorithms, and techniques for describing and programming motion for virtual 3D worlds. Approaches that will be explored include keyframing systems, kinematics, motion of articulated figures, and procedural and behavioral systems. This course includes the implementation of techniques presented in lecture. Students are encouraged to devise new techniques, implement them, and determine their effectiveness. Students will be required to implement and document a large software project related to computer animation.

CS 07390: Introduction To Computer Game Design And Development 3 s.h.
Prerequisites: (CS 04222 or CS 04225) and (Math 01210 or MATH 01235)
This is a junior/senior level course that introduces the technology, science, and art involved in the creation of computer games. Games will be examined in a systems context to understand gaming and game design fundamentals. The theory and practice of developing computer games will be investigated from a blend of technical, aesthetic, and cultural perspectives. Extensive study of past and current computer games will be used to illustrate course concepts. Group game development and implementation projects will culminate in classroom presentation and evaluation.

CS 07422: Theory Of Computing 3 s.h.
Prerequisites: CS 04222 and MATH 01131 and CS 07210
This is an advanced course in the theoretical foundations of computer science, building on the introduction provided in the Foundations of Computer Science course. It studies models of computers, such as finite automata and Turing machines, formal languages, and computability, as well as the fundamentals of complexity theory and NP-completeness.

CS 07430: Human-Computer Interaction 3 s.h.
Prerequisite: CS 07321
This course teaches the fundamental concepts of Human Computer Interaction (HCI) and user-centered design. Students will learn how to create effective interfaces to both software and hardware systems that are both effective and usable. Students will study modeling, user testing, user interaction analysis techniques, and prototyping. Team projects are required.

CS 07450: Artificial Intelligence (AI) 3 s.h.
Prerequisite(s): (MATH 03160 or MATH 03150) and CS 04222 and CS 07210
AI studies methods for programming "intelligent" behavior in computers. Students study the data representation methods and algorithms used in AI, and survey research areas such as puzzle solving, game-playing, natural language processing, expert systems, and learning. In addition to readings, discussion, and problem solving in AI, students will be expected to program in one of the languages commonly used in AI, such as LISP or Prolog.

CS 07460: Computer Vision 3 s.h.
Pre-req: CS 04.222, Math 01.210, and Stat 02.290
This course examines the fundamental issues in computer vision and major approaches that address them. The topics include image formation, image filtering and transforms, image features, mathematical morphology, segmentation, camera calibration, stereopsis, dynamic vision, object recognition and computer architectures for vision.
Course Descriptions

CS 07470:  Theory And Applications Of Pattern Recognition  3 s.h.
This class will introduce a broad spectrum of pattern recognition algorithms along with various statistical data analysis and optimization procedures that are commonly used in such algorithms, with particular emphasis to engineering applications. Although mathematically intensive, pattern recognition is nevertheless a very application driven field. This class will therefore cover both theoretical and practical aspects of pattern recognition, Bayes decision theory for optimum classifiers, density estimation techniques, discriminant analysis, basic optimization techniques, introduction to basic neural network structures, unsupervised clustering techniques and more state of the art algorithm independent techniques.

CS 07480:  Introduction to Data Mining  3 s.h.
Prerequisites: CS 04222 and STAT 02290 or STAT 02360 or STAT 02361 or STAT 02360 and STAT 02260
This course teaches the fundamental concepts of Data Mining. Students will learn how to program systems to gather and analyze large data sets to discover important patterns.

CS 09300:  Computer Field Experience  3 to 9 s.h.
Prerequisites: permission of instructor (note: only 3 credits for CFE can be applied towards the restricted electives)
Students are assigned projects in a professional environment.

INTR 01265:  Computers And Society  3 s.h.
Prerequisites: CMS 06202
This interdisciplinary course focuses upon the effects of computer systems on individuals and institutions. How computer systems are developed and operated will be related to an analysis of current trends in American society. A study of present and probably future applications of computers in such areas as management, economic planning, data collection, social engineering, education and the military will be followed by an exploration of the relationship of computer systems to problem solving orientations, bureaucratization, centralization of power, alienation, privacy, autonomy and people's self-concept. This course is open to students at any level who satisfy the prerequisite and have course work in computer science or sociology or permission of instructor.

INTR 01266:  Computer And Society - Wi  3 s.h.
Prerequisites: CMS 06202
This interdisciplinary course focuses upon the effects of computer systems on individuals and institutions. How computer systems are developed and operated will be related to an analysis of current trends in American society. A study of present and probably future applications of computers in such areas as management, economic planning, data collections, social engineering, education and the military will be followed by an exploration of the relationship of computer systems to problem solving orientations, bureaucratization, centralization of power, alienation, privacy, autonomy and peoples' self-concept. This course is open to students at any level who satisfy the prerequisite and have course work in computer science or sociology or permission of instructor.

EDSU 28100:  Leadership Theory  3 s.h.
This course is an introduction into the academic study of leadership from a theoretical perspective that broadly examines the historical, social, and political context of leadership as a concept and process.

EDSU 28205:  Leadership Seminar I  2 s.h.
Prerequisites: EDSU 28100
This seminar joins leadership theory and practice by requiring students to explore leadership issues in an active, hands-on way. The course will provide students with a more in-depth understanding of leadership as it relates to various settings, including their major discipline, and will require students to write persuasively in a leadership way.

EDSU 28305:  Leadership Seminar II (Capstone)  3 s.h.
Prerequisites: EDSU 28100 and EDSU 28205
This seminar provides students with a greater understanding of and appreciation for leadership as a change process along with various factors influencing that process. Focuses on the development of skills needed to manage change in organizations.

SNUR 92430:  Methods And Materials In Health Teaching For School Nurses  3 s.h.
This course emphasizes the school nurse's expanding role as a classroom health teacher as well as a resource person to the school staff. Discussions and experiences will center on theories of teaching and learning, planning for teaching, curriculum development, the New Jersey Core Curriculum Content Standards (NJCCCS), teaching strategies, educational resources, classroom management, assessment, and the integration of health teaching into varied school subjects. A K-12 classroom experience is included to facilitate the integration of theory into the clinical practice.
SNUR 92444: Practicum In School Nursing  3 s.h.
Prerequisites: SNUR 92466
The purpose of this field experience is to provide an opportunity for the student to engage in a mentoring relationship with an experienced, certified school nurse. The student will have the opportunity to observe and participate in the various roles, functions, and activities of the school nurse. A college supervisor will visit the student in the field placement situation. Meetings of all students enrolled in the Practicum are held periodically at the college. *Pre-registration consultation with instructor is required.

SNUR 92445: Internship In Health Teaching For School Nursing  3 s.h.
Corequisites: SNUR 924448 Prerequisites: SNUR 92430 and SNUR 92466
The purpose of this field experience is to provide an opportunity for the student to utilize INTASC principles, the NJ Comprehensive Health Education and Physical Education Curriculum Framework and the NJ Core Curriculum Content Standards to teach health classes in a classroom setting. A college supervisor will visit the student in the employed or field placement situation. This course is taken concurrently with SNUR 92.448. Pre-registration consultation with program advisor is required one semester prior.

SNUR 92448: Health Teaching Methods For School Nursing Seminar  2 s.h.
Corequisites: SNUR 92445 Prerequisites: SNUR 92430 and SNUR 92466
This senior level seminar is to be taken with Internship in Health Teaching for School Nursing (SNUR 92.445). The seminar will focus on four major areas: issues in health education, instructional strategies and classroom management, analysis and assessment of the Internship in Health Teaching for School Nursing experience, and preparation for school nurse employment.

SNUR 92466: School Health Services  3 s.h.
The framework for School Health Services and Policies within the functions of the school nurse will be discussed, as well as specific functions and roles to include that of the school nurse within the comprehensive school counseling program and the interface between health services and nationally utilized school guidance counseling standards and indicators. Particular emphasis will be placed on school and community activities relating to students, their families and other educational personnel.

ECE 09100: Signals, Systems And Music  3 s.h.
This course is an introduction to the analysis and creative production of electronic music. The student will experience music using the principles of music theory, electronic signal analysis and system development. Both lecture and laboratory sessions are presented culminating in the development and production of electronic music using recorded sound, software generated signals and electronically produced signals.

ECE 09201: Network I  2 s.h.
Prerequisites: CS 04103 and (MATH 01131 or MATH 01141) and (PHYS 02200 or PHYS 00220) and MATH 01235
Covers basic network principles, network laws and analysis methods, including steady-state and transient responses of passive networks, with independent and dependent sources. Op amps are covered as examples of active electronic networks. Computer-aided analysis and simulation tools are presented as methods to augment network analysis and design.

ECE 09202: Network II  2 s.h.
Prerequisites: ECE 09201 Minimum Grade of C
Extends network analysis principles including AC sources, transformers, and polyphase networks. The Laplace transform is developed as a method for obtaining the transient and steady-state response of a network. The frequency response of a transfer function is analyzed using Bode plots. The Fourier transform technique is used to determine the response of networks to periodic inputs. Computer-aided analysis and simulation tools are presented as methods to augment network analysis and design.

ECE 09203: Principles Of Electric Circuit Analysis  4 s.h.
Prerequisites: CS 04103 AND PHYS 02200 AND (MATH 01131 OR MATH 01141)
The fundamental principles of circuit and network theory constitute the very foundation on which the field of electrical engineering stands. From a simple household item such as a toaster or flashlight, to the most advanced devices, large scale electric power distribution and transmission systems, including such emerging topics as smart grid, photovoltaic energy generation to electric vehicle technology, all operate based on the basic concepts of circuit and network theory. This core course, which constitutes the primary prerequisite of most other ECE courses, is designed to provide the students not only with a comprehensive foundation of circuit and network theory, but also the basic skills of circuit analysis, design and testing. Starting with Ohm’s Law, this course first discusses resistive and DC circuits and introduces Kirchhoff’s Laws, Thevenin and Norton equivalents of networks, mesh and nodal analysis, followed by independent and dependent sources, and operational amplifiers. The second half of the course focuses on AC circuits and memristors. Laplace transforms will be introduced for transient and steady state response of networks, followed by various applications of AC circuits, such as filters. Computer-aided analysis and simulation tools are also presented as contemporary methods of network analysis and design.
Course Descriptions

ECE 09204: Clinical And Medical Technology In Today'S Medicine 4 s.h.  
Prerequisite: MATH 01123
This is a general education laboratory science course intended to provide students with a survey of current and emerging clinical and medical technologies. The course will first introduce signals of biological origin, discussing how they are generated, how they can be measured and how they are processed; followed by an overview and operation principles of clinical and medical devices that have been developed to measure and analyze various physiological systems. The course will also include an overview of medical imaging technologies as well as other current and emerging technologies, such as DNA sequencers and microarrays. Safety and ethical considerations in design and use of these technologies will also be discussed. The course will have a laboratory component allowing students to interact with real-world biological signals, systems and devices. Specifically, students will be able to acquire, analyze and interpret their own vital signals, such as signals of cardiovascular, respiratory or neurological origin.

ECE 09205: Principles And Applications Of Ece For Nonmajors 3 s.h.  
Prerequisites: CS 04103 and (PHYS 02201 or PHYS 00220) and MATH 01235
Principles and Applications of ECE for Nonmajors covers basic concepts of ECE topics for nonmajors. An emphasis is placed on practical applications using ECE hardware and analytical techniques to be able to design, analyze (or simulate), build and test practical circuits. The content includes digital and analog circuits as well as electromechanics.

ECE 09241: Digital I 3 s.h.
The first course in digital systems covering boolean algebra, switching theory, minimization, asynchronous and synchronous network design, hardware design using state equations in a simulation and development environment. The course also treats applications of digital system design.

ECE 09243: Computer Architecture 3 s.h.  
Prerequisite: ECE 09241 Minimum Grade of C
Computers and systems are ubiquitous. Processors are encountered at every computational scale ranging from embedded microprocessors in smart phones and sneakers, through desktop, laptop, and tablet computers with extensive memory and I/O, to supercomputers composed of arrays of processors. This core course provides a foundation for understanding computer architecture and the interplay between the central processor, memory and input/output. The course will cover a range of analysis and design techniques and include a survey of representative modern architectures. One will be selected to provide the basis for further inquiry and to provide a platform for project-based learning.

ECE 09303: Engineering Electromagnetics 3 s.h.  
Prerequisites: (ECE 09202 or ECE 09203, each with minimum grade of C) and (PHYS 02201 or PHYS 00222) and MATH 01236
Engineering electromagnetics covers applications of electrostatics, magnetostatics, quasistatics, and electromagnetic wave propagation in contemporary electrical engineering practice. The course also covers numerical modeling/analysis of electromagnetic systems using appropriate software and laboratory-based measurements.

ECE 09311: Electronics I 3 s.h.  
Prerequisites: ECE 09203 Minimum Grade of C
The first course in electronic devices and circuit design covers the fundamentals of circuits involving diodes, bipolar junction transistors and field effect transistors in a simulation and laboratory environment. The basics of circuit operation and modeling are covered along with applications to multistage amplifier design. The SPICE software is used as a simulation tool.

ECE 09312: Electronics II 3 s.h.  
Prerequisites: ECE 09311 Minimum Grade of C
This is an advanced course in the operation of the components that constitute the building blocks of electronic devices: diodes, transistors, and operational amplifiers. This course will expand upon the applications in which these devices are used and introduce Very Large Scale Integration (VLSI) circuit design and layout with a focus on Complementary Metal Oxide Semiconductor (CMOS) technology. Experiments in the laboratory and simulation of circuits, systems and testing strategies will complement and supplement the theory taught in class.

ECE 09321: Systems And Control I 3 s.h.  
Prerequisites: ECE 09202 Minimum Grade of C or ECE 09341 Minimum Grade of C
The first course in control systems introduces the fundamental concepts of linearity, time-invariance, stability and the transfer function. Mathematical and circuit equivalence of different systems (electrical, mechanical, fluidic, and thermal) are established. A thorough treatment of stability through the Routh-Hurwitz, root locus and Nyquist criterion is given. Frequency response analysis by means of the Bode plot is also covered. Software simulation primarily with MATLAB and laboratory experiments will complement and supplement the theory.
ECE 09321: Systems And Controls I
Prerequisites: ECE 09321
This course is a continuation of Systems and Controls I with the focus on multi-input, multi-output systems. The fundamental concepts of linearity and time-invariance are introduced. The state-space description and the concept of a matrix transfer function are studied in depth, especially with respect to stability. The concepts of controllability, observability, and realizations are covered. Numerical techniques are continuously emphasized. Optimal control and nonlinear systems are also discussed. Software simulation, primarily with MATLAB and laboratory experiments, will complement and supplement the theory.

ECE 09322: Systems And Controls II
Prerequisites: ECE 09321
This course is a continuation of Systems and Controls I with the focus on multi-input, multi-output systems. The fundamental concepts of linearity and time-invariance are introduced. The state-space description and the concept of a matrix transfer function are studied in depth, especially with respect to stability. The concepts of controllability, observability, and realizations are covered. Numerical techniques are continuously emphasized. Optimal control and nonlinear systems are also discussed. Software simulation, primarily with MATLAB and laboratory experiments, will complement and supplement the theory.

ECE 09331: Electrical Communication Systems
Prerequisites: ECE 09202 Minimum Grade of C and MATH 01236 and ECE 09241 and ECE 09311
This is a junior level undergraduate course that covers the fundamentals of analog and digital communication systems. Analog and digital modulation techniques are covered along with optimal receivers, concept of a matched filter, error rate and intersymbol interference. Appropriate mathematical background in Fourier transforms, probability and random variables are taught. The student is exposed to software and hardware designs.

ECE 09341: Signals And Systems
Prerequisites: (ECE 09202 OR ECE 09203) AND MATH 01236
Continuous and discrete systems are used in every branch of engineering. Communication systems (for the transmission of voice, video and data), robotic systems, energy systems, biometric systems (Identification of a person based on physiological traits), systems that aid the handicapped and system-on-chip circuits are just a few examples that use the fundamental principles taught in this course. This course provides students with a foundation in linear dynamical systems and provides the appropriate background to engage in more advanced subjects like controls, signal processing and communications. This course will discuss the fundamental tools associated with the analysis of continuous (Laplace transform, Fourier transform and Fourier series) and discrete (z-transform) signals and systems. The concepts of impulse response, frequency response, convolution are taught with the appropriate background in complex numbers and variables. Simple analog and digital filters and their practical uses form a major component of the laboratory component.

ECE 09342: DIGITAL II: MICROPROCESSORS
Prerequisite: ECE 09243 Minimum Grade of C
The second course in digital systems covers principles of computer systems design including hardware and software. The course also treats applications of computer design.

ECE 09343: Digital Signal Processing
Prerequisites: ECE 09341 Minimum Grade of C
This class is concerned with processing of digital and/or discrete time signals using linear time invariant systems, hence digital signal processing - DSP. It is DSP that makes communication systems, medical diagnosis and monitoring systems, engine diagnostics, seismic/tectonic/oceanographic analysis systems, all of audio-visual entertainment systems and many other countless systems possible. This course has been designed to deep the real-world perspective at the forefront in each topic discussed, without sacrificing any of the elegant mathematics that underlies all DSP techniques. The primary goals of this course are to (1) introduce time and frequency domain concepts and the associated mathematical tools that are fundamental to all DSP techniques; and (2) provide a thorough understanding and working knowledge of design, implementation, analysis and comparison of digital filters for processing of discrete time signals. The class will discuss the following topics: representation of signals and systems in time and frequency domains, the z-transform, filter structures, filter design and implementation, random signal analysis and spectral estimation, finite wordlength effects and wavelet transforms for time-frequency analysis.

ECE 09351: Electrical Engineering Clinic Consultant I
Prerequisites: ENGR 01.202, MATH 01.236
This course provides the student with disciplinary background and preparation for consulting work in support of multidisciplinary clinic projects. Work and topics will be directed by the clinic discipline manager.

ECE 09352: Electrical Engineering Clinic Consultant II
Prerequisites: ECE 09351
This course provides the student advanced disciplinary background and preparation for consulting work in support of multidisciplinary clinic projects. Work and topics will be directed by the clinic discipline manager.

ECE 09360: Modules In Electrical And Computer Engineering
Prerequisite: ENGR 01.201
The field of electrical and computer engineering is very diverse and is growing exponentially. This course is designed to serve as a feedback and feed-forward mechanism not only to reinforce certain topics previously discussed elsewhere in the curriculum, but also to introduce new and/or emerging topics that are not covered elsewhere in the curriculum. The course is taught as a series of modules covering topics that are not part of any particular course, (e.g., power systems, smart power grid), topics to be reinforced, (engineering probability and statistics, random signals, transform techniques), and emerging
topics that are not yet fully integrated into the curriculum. Therefore, different offerings of this course will likely have different topical content, chosen based on the feedback of the faculty and students during curriculum assessment, as well as important emerging topics that push the boundaries of electrical and computer engineering.

ECE 09400: Electrical Engineering Clinic Consultant
1 s.h.
Prerequisites: ENGR 01202
This course provides an opportunity for consulting work in support of a multidisciplinary clinic project. Work will be managed by the discipline manager.

ECE 09401: High Speed Interconnects
3 s.h.
High speed interconnects are pervasive in electronic systems. From the smallest integrated circuits to the largest worldwide networks, the ability to interconnect components, subsystems and systems is of critical importance. This course will provide a fundamental understanding of the various techniques used to achieve high-speed interconnects. Topics to be covered include: transmission lines, metal waveguides, dielectric waveguides, antennas, and electromagnetic compatibility.

ECE 09402: Topics In Electrical & Computer Engineering
1 to 3 s.h.
This course covers special topics in individual areas of Electrical and Computer Engineering. Specific prerequisites are determined by the nature of the course when it is announced.

ECE 09403: Sustainable Design In Engineering
3 s.h.
This is a senior level undergraduate elective course that covers the fundamentals of sustainable design in engineering with an emphasis on electricity and energy. Topics include energy fundamentals (forms, fuels, conversion technologies), energy use and its impacts on a globalizing economy, life cycle assessment tools and environmental management techniques, ISO14001 implementation in industry (US vs. European experience), application of sustainable engineering practice via an eco-design software tool. The student is exposed to sustainable designs in product manufacturing and energy/electricity production.

ECE 09404: Principles Of Biomedical Systems And Devices
3 s.h.
As a survey of biomedical engineering, this class will introduce various systems of the human physiology from an engineering perspective. In particular, students will be introduced to signals of biological origin obtained from these systems; biosensors, transducers and bioelectrodes used to acquire such signals, along with medical quality amplifiers for measuring biopotentials. Electrical safety of medical devices; measurements of the blood pressure, blood flow, and respiratory system will also be discussed. Along with a carefully designed set of experiments, this course will provide the fundamental principles of biomedical engineering from an electrical and mechanical engineering perspective.

ECE 09405: Product Engineering
3 s.h.
This course treats product engineering from a variety of perspectives including engineering and non-engineering viewpoints to explore important elements for modern design. Techniques and tools of rapid prototyping, including virtual reality, are treated. Important course concepts are reinforced through product design experiences.

ECE 09406: Forensic Engineering And Product Liability
3 s.h.
This course examines engineering failure from both the forensics and liability perspectives. Forensic engineering seeks to discover the reason for product or system failure. Product liability seeks to assign and quantify blame for that failure. Methods of forensic engineering are presented. The implications of product liability on the design process are considered from several perspectives. The course is complemented with practical applications.

ECE 09407: Interaction Design
3 s.h.
Prerequisites: ENGR 01302
This course examines interaction design from several perspectives. The role of ergonomics is treated along with techniques of input and output interfacing. Methods and tools for virtual implementation are presented. The course is complemented with practical applications.

ECE 09408: Power System Engineering
3 s.h.
Prerequisites: ECE 09202 and ECE 09302
This is an upper level elective course that covers the fundamentals of power system engineering with an emphasis on the modern electricity grid and new energy technologies. Topics include: History and Key inventions in the development of the electric power industry, mechanical and electromagnetic fundamentals, three-phase circuits and transformers, AC machinery, synchronous machines and induction motors, DC machines, transmission lines, power flow, system reliability, advanced generation technologies, utility industry deregulation, and options for a sustainable electric power system in the future.
Course Descriptions

ECE 09409: Introduction to Virtual Reality 3 s.h.
Prerequisites: ECE Majors: CS 04103 or CS 04113 Non ECE Majors: Permission of Instructor
Introduction to Virtual Reality (VR) covers the architecture of current generation systems for creating 3D VR environments. Topics included are application/hardware architecture, pipeline development, geometric transformations in a 3D coordinate system, geometry and pixel shading, lighting systems, texturing and VR development. Students will be exposed to current VR technologies and next generation algorithms.

ECE 09411: Modern Solid State Devices 3 s.h.
This is an introductory course in the fundamentals of solid state electronic devices. The course will cover the physical structure of silicon and compound semiconductor materials and the conduction processes in these materials. The p-n junction and its applications will be studied along with the principles of transistor devices. The course will address analog and switching applications and introduce basic laser operations.

ECE 09412: Electronic Packaging 3 s.h.
Prerequisites: ECE 09201 and ECE 09311 and PHYS 02200 or PHYS 00220
This is an introductory course in the fundamentals of electronic packaging. It focuses on the complex interaction of materials science, mechanics of materials, and electrical signal processing. The course will progress from the basic materials used in chip packaging and board construction, through mechanical design and testing, to the electrical modeling of the interconnect structure, and finally to reliability assessment. The laboratory exercises will mirror this four-part organization by providing opportunities for laboratory experience in each of the four areas.

ECE 09413: Principles Of Nondestructive Evaluation 3 s.h.
Prerequisites: ENGR 01401 or ENGR 01402
Principles of nondestructive evaluation provides an introduction to contemporary and emergent methods for the non-invasive inspection of infrastructure composed of modern engineering materials. The course covers system design and the processing and analysis of nondestructive evaluation signals. Case studies on engineering design for testing are provided.

ECE 09421: Introduction To Systems Engineering 3 s.h.
Prerequisite: ECE 09321
Systems Engineering is the interdisciplinary approach and means to enable the realization of today's complex, dynamic products and systems. Individual products such as Cell phones, aircraft, automobiles, computers and even household appliances are made up of parts developed by many people with varied skill sets, often working for different companies and from remote locations. Other systems such as transportation, energy generation and distribution, medical, communications, emergency response and similar are very complex as they are composed of many varieties of products and systems. Systems Engineering is an integrating function that addresses all the disciplines and specialty groups resulting in a structured development process that proceeds from concept to production to operation including maintenance & support, and eventual disposal. Systems Engineering considers both the business and the technical needs, including environmental and safety, of all customers with the goal of providing a quality product that meets the user needs. It focuses on defining customer needs and required functionality early in the development cycle, documenting requirements, proceeding with design synthesis and system validation while considering the complete problem that includes - operations, cost & schedule, performance, training & support, sustainment, test, disposal, and manufacturing. The course is designed to expose the student to the system engineering process to complement their technical skill set and to cover topics that are often not covered in other classes. The course will include frequent guest lecturers who are practicing experts in the systems engineering domain. The course will utilize the latest in processes and software tools from industry such as SysML modeling and architectural documentation tools. Students will participate in a semester long project to gain hands-on experience with the course concepts.

ECE 09430: Introduction To Rf Electronics 3 s.h.
Prerequisite: ECE 09303
Introduction to RF Electronics covers the fundamental principles behind radio-frequency (RF) design and analysis. Topics will include distributed parameter analysis, single- and multi-port networks, filter design, matching and bias networks, active devices, and amplifier design. The course also covers numerical modeling/analysis of RF sub-systems using appropriate software and laboratory-based measurements. Designing, building, and testing an RF sub-system (of receiver) is part of the course.

ECE 09431: Optical Fiber Communications 3 s.h.
Prerequisites: ECE 09301 and ECE 09302 and ECE 09311
Optical communications is an integral part of the world-wide telecommunications system. This course will consider the numerous technologies that comprise such systems as well as the techniques to design, analyze, simulate, and test such systems. Topics include: theory of optical waveguiding, waveguide structures, materials, dispersion, signal degradation in fibers, laser diodes, optical amplifiers, optical coupling, photodetectors, noise, receiver operation, and numerical and analytical techniques for performance calculations and system evaluation.
Course Descriptions

ECE 09432:  Wireless Communications  3 s.h.
Prerequisites: ECE 09301 and ECE 09302 and ECE 09311 and ECE 09331
This course will cover the fundamentals of cellular systems, the technologies that are used to implement such systems, radio propagation effects, modulation techniques and the analysis and systems performance evaluation of wireless links.

ECE 09433:  Electrical Communications Systems  3 s.h.
Prerequisites: (ECE 09202 Minimum Grade of C or ECE 09203 Minimum Grade of C) and MATH 01236 and ECE 09241 and ECE 09311 and ECE 09351.
This is a senior level undergraduate course that covers the fundamentals of analog and digital communication systems. Analog and digital modulation techniques are covered along with optimal receivers, concept of a matched filter, error rate and intersymbol interference. Appropriate mathematical background in Fourier transforms, probability and random variables are taught. The student is exposed to software and hardware designs.

ECE 09444:  Computer Architecture II: Specialized Systems  2 s.h.
Prerequisites: ECE 09443
The second course in computer architecture treats architecture elements of special-purpose digital systems. Use of macro functions is stressed.

ECE 09451:  Architectures For Digital Signal Processing  3 s.h.
Prerequisites: ECE 09351
This is a senior level undergraduate elective course that covers the fundamentals of the implementation of digital signal processing algorithms using special purpose hardware. Topics include fixed and floating point arithmetic, assembly language programming, sampling, digital filter implementation, finite wordlength effects, quantization noise and fast Fourier transform implementation. The student is exposed to application designs in communications, speech and image processing.

ECE 09452:  Introduction To Digital Image Processing  3 s.h.
Prerequisites: ECE 09351
Introduction to Digital Image Processing covers the analysis and contemporaneous applications of the enhancement, restoration, compression and recognition of monochromatic images. Both classical and state-of-the-art algorithms will be employed in conjunction with appropriate software for analyzing real-world images.

ECE 09453:  Adaptive Filters  3 s.h.
Prerequisites: ECE 09351
This is a senior-level undergraduate elective course that covers the fundamentals and implementation of adaptive filtering algorithms using software and special purpose hardware. Topics include random signals, least-mean squares method, recursive least squares method, filter structures and finite wordlength effects. The student is exposed to applications in communications, signal separation, radar, noise cancellation and seismic signal processing.

ECE 09454:  Introduction To Artificial Neural Networks  3 s.h.
Prerequisites: MATH 01210 or MATH 01236
This course covers the design of a variety of popular neural network architectures and their contemporary engineering applications. Neural network architectures that will be studied in detail include the multilayer perceptron, radial basis function and the Hopfield networks. State-of-the-art software will be used for network design. VLSI implementations of neural networks will be discussed.

ECE 09455:  Theory And Applications Of Pattern Recognition  3 s.h.
This class will introduce a broad spectrum of pattern recognition algorithms along with various statistical data analysis and optimization procedures that are commonly used in such algorithms, with particular emphasis to engineering applications. Although mathematically intensive, pattern recognition is nevertheless a very application driven field. This class will therefore cover both theoretical and practical aspects of pattern recognition, Bayes decision theory for optimum classifiers, density estimation techniques, discriminant analysis, basic optimization techniques, introduction to basic neural network structures, unsupervised clustering techniques and more state of the art algorithm independent techniques.

ECE 09456:  Introduction To Embedded System Design  3 s.h.
Prerequisites: ECE 09242 and ECE 09443 or CS 06412 and CS 04390
This course provides a comprehensive treatment of embedded system design, verification, analysis, and optimization. Topics include embedded system architecture, interfacing, computational models, real-time scheduling and communications, and resource management in real-time systems, etc.
ECE 09460: Electrical Engineering Clinic Consultant I 1 s.h.
Prerequisites: ENGR 01302 and MATH 01236 and ECE 09203 Minimum Grade of C
This course provides an opportunity for instruction in principles of engineering consulting and consulting work in support of a multidisciplinary clinic project. Work will be managed by the clinic discipline manager.

ECE 09462: Electrical Engineering Clinic Consultant II 1 s.h.
Prerequisite: ECE 09460
This course provides an opportunity for instruction in principles of engineering consulting and consulting work in support of a multidisciplinary clinic project. Work will be managed by the clinic discipline manager.

ECE 09466: Systems, Devices And Algorithms In Bioinformatics 3 s.h.
Prerequisites: ECE Majors: ECE 09551. Non ECE majors: Permission of Instructor OR (MATH 01235 OR (MATH 01230 AND MATH 01210) AND (STAT 02260 OR STAT 02280) AND (PHYS02203 OR PHYS 02201) AND (CS 04103 OR CS01104 OR CS 04113)
Bioinformatics is the field of applying computational techniques, from mathematics, statistics, and machine learning, to the vast amounts of biological - but most specifically genomic - data. While some refer to bioinformatics only in the context of collection, storage, organization and access of such biological data within large databases, this course's view of bioinformatics will include - in fact focus on - systems and devices that generate such data, and development of methodologies and models to analyze the vast quantities of data generated by such systems and devices. The course will provide basic biological background of genomics, will introduce the students to commonly used bioinformatics databases and computational tools (such as search, alignment, and protein visualization tools) used to analyze genomic data from such databases. The focus of the course will be on basic bioinformatics systems and devices, such as high throughput next generation sequencers and genechips, followed by an in-depth discussion of the theory of basic genomic signal processing and computational intelligence techniques used in bioinformatics, including hidden Markov models and optimization algorithms for sequence alignment and gene prediction, clustering and classification algorithms.

ECE 09468: Introduction To Discrete Event Systems 3 s.h.
Prerequisites: ECE Majors: ECE 09243 Non ECE Majors: Permission of Instructor
This course introduces fundamentals of discrete event system models and their applications in modeling, control, analysis, validation, simulation, and performance evaluation of computer systems, hardware/software co-design, manufacturing/de-manufacturing processes, communication networks, and transportation, etc. The mathematical and graphical models include graphs, finite state machine, Petri Nets, timed models, stochastic timed models, and Markov chains, etc.

ECE 09469: Introduction To System-On-Chip Verification 3 s.h.
Prerequisites: ECE Majors: ECE 09243 Non ECE Majors: Permission of Instructor
This course introduces fundamentals of hardware design verification, including traditional functional simulation and assertion-based verification. Topics covered include functional simulation, coverage metrics, testbench design and automation, and assertion-based verification. Property specification language (PSL) is also introduced.

ECE 09471: Instrumentation 3 s.h.
Prerequisites: ECE 09201 and ECE 09311
Elements of instrumentation systems are treated including transducers, signal conditioning, and signal processing. Elements of modern instrumentation systems including standards (IEEE-488, SCPI) and smart sensors are considered. Course is complemented with an instrumentation application.

ECE 09472: Smart Grid 3 s.h.
Prerequisites: ECE 09342 AND ECE 09321
The ways in which electricity is generated, transmitted, distributed, stored, and used, are the subject of revolutionary and evolutionary changes compared to the electricity grid we have today. Smart Grid goals include the improvement of grid reliability, reduction in outages, faster return on service, ability to integrate a broad range of renewable energy sources, and to include customers in the ability to effect load decisions based on grid demand and energy pricing. This course will address grid fundamentals, tools and technologies, and then address major Smart Grid subsystems including conventional and alternative generation, storage technologies, transmission and distribution systems, standards, demand management, real-time pricing, grid stability, control technologies, measurement including Smart Sensors and Advanced Metering Infrastructure. Physical and cyber vulnerabilities will also be addressed. The course will include a project to reinforce Smart Grid elements and involve students in this technology, which has significant international economic implications.
Course Descriptions

ECE 09473: Smart Sensors 3 s.h.
**Prerequisites: ECE 09442 AND ECE 09311 AND ECE 09321**
Elements of Smart Sensors and Smart Sensor systems are treated. Instrumentation fundamentals covered include transducers, signal conditioning, and data acquisition, communication, along with important considerations and associated standards. Relationship of smart sensors to integrated system health monitoring (ISHM) and similar Intelligent Sensor applications are addressed. The course will include a project to reinforce Smart Sensor elements.

ECE 09481: Backplane Design 3 s.h.
This course provides an overview of backplane design for a variety of digital systems. It surveys current technologies with treatment of emerging and updated standards. Methods of analysis, synthesis, and verification of backplane systems are presented. The course is complemented with project work for typical applications.

ECE 09483: Digital Design W/Vhdl 3 s.h.
The course uses VHDL to model and simulate digital systems. Specialized features of the language are presented to allow getting optimum results from simulations. Example VHDL applications are explored and a project is used to complement the course.

ECE 09484: Mixed Signal Technology 3 s.h.
This course will extend the student’s background in circuit design to include the devices and technologies used in mixed analog-digital VLSI chips for high volume applications such as hard-disk drives, cordless telephones and TVs. The course will begin with device models, fabrication technology and layout as applied to mixed analog-digital circuits. Device modeling requirements for analog work will be covered as well as models used in most modern circuit simulators. Fabrication technologies will be examined that have been developed specifically for mixed signal VLSI chips. The techniques for layout of mixed signal circuits that emphasize a high degree of analog device matching and minimum digital-to-analog interference will be covered.

ECE 09486: Seminar: Engineering Frontiers 1 s.h.
**Prerequisites: (ENGR 01201 or COMP 01112) and ENGR 01401**
The Seminar in Engineering Frontiers will provide students with a glimpse into contemporaneous cutting edge technology and research in electrical and computer engineering. Course content and topics will change with each offering to maintain currency with the frontiers of engineering technology.

ENGR 01101: Freshman Engineering Clinic I 2 s.h.
This course presents an introduction to the practice of engineering through application problems drawn from engineering disciplines chosen to amplify work drawn from supporting courses. It includes topics such as: technical communication formats; analytical tools; computer-based tools: introduction to design; engineering ethics; teamwork.

ENGR 01102: Freshman Engineering Clinic II 2 s.h.
**Prerequisites: ENGR 01101, MATH 01130, PHYS 02200 and ENGR 01101**
This course, a continuation of Freshman Engineering Clinic I, provides expanded treatment of the practice of engineering through applications drawn from engineering disciplines. Project work includes a variety of technical communication topics, analytic and computer-based tools, including the design process, engineering ethics, safety, and team work.

ENGR 01201: Sophomore Engineering Clinic I 4 s.h.
**Prerequisites: ENGR 01102 and COMP 01111 and (PHYS 02200 or PHYS 00220 or HONR 05183) and (MATH 01131 or MATH01140) and (CS 01104 or CS 04103 or CS 01102)Corequisites: (CHEM 06100 or CHEM 06105)**
This course, a continuation of the Engineering Clinic series, provides expanded treatment of the practice of engineering through applications drawn from various engineering disciplines and industry. Project work includes a variety of technical communication topics, analytic and computer-based tools, including the design process, engineering ethics, safety and teamwork. The composition component presents critical thinking, reading, writing, research and argumentation.

ENGR 01202: Sophomore Engineering Clinic II 4 s.h.
**Prerequisites: ENGR 01201 and (CHEM 06100 or CHEM 06105)**
This course is a continuation of the Engineering Clinic sequence that provides design and design support experiences. The clinic also integrates information from supporting courses. The goal of the public speaking component is to enable students to participate effectively in oral communication, especially as related to technical presentations.

ENGR 01271: Statics 2 s.h.
**Prerequisites: (MATH 01131 or MATH 01141) and (PHYS 02200 or PHYS 00220)**
The course deals with the study of engineering statics which includes the statics of structural systems. The study of structural systems includes equilibrium, structural analysis, and geometric properties of structural members.
ENGR 01272: Solid Mechanics 2 s.h.
Prerequisites: ENGR 01271
The course deals with the study of solid mechanics including stress and strain, mechanical properties of materials, and beam and bar analysis. The study of beam and bars includes axial forces, torsion, bending, shear, combined loading, buckling, and design.

ENGR 01281: Material Science 2 s.h.
Prerequisites: (PHYS 02200 or PHYS 00220) and CHEM 06105
This course develops the material structure and property relations. Atomic bonding, lattice structures, crystalline and polymeric structures and properties, imperfections, dislocations, phase diagrams, and quantitative analysis are presented. Properties of metals and alloys, ceramics, polymers, composites, and electrical materials are discussed.

ENGR 01282: Manufacturing Processes 2 s.h.
Prerequisites: ENGR 01281
This course develops the fabrication processes for engineering materials. Discussion of heat treatment of metals will be followed by manufacturing methods for metals and alloys. Casting, powder metallurgy, hot and cold forming, welding and joining, and material removal techniques for metals will be followed by fabrication techniques for non-metals, ceramics, and composites.

ENGR 01283: Materials Science And Manufacturing 3 s.h.
Prerequisites: CHEM 06105 or (CHEM 06100 and CHEM 06101)
This course is intended to give students a strong background in materials science and manufacturing. The course covers the behavior of materials, starting from an atomic level, and building to how atomic level structures influence macroscopic failure in both metals and polymers. The rheology of various materials becomes the transition into how they are developed into useful products through various manufacturing methods including casting, extrusion, molding, sintering, machining and through composite fabrication techniques.

ENGR 01291: Dynamics 2 s.h.
Prerequisites: (PHYS 02200 or PHYS 00220) and ENGR 01271
Study of kinematics and kinetics of a particle, including work-energy and impulse-momentum methods. Systems of particles are considered. Kinematics and kinetics of plane motion of rigid bodies are introduced with respect to absolute and relative motions in various reference frames. Concept of mass moment of inertia is introduced.

ENGR 01301: Junior Engineering Clinic I 2 s.h.
Prerequisites: ENGR 01202 and MATH 01236 and (CHEM 06302 or ECE 09311 or ENGR 01272)
This is one course in a sequence of courses that will provide a meaningful research and design experience for a team of undergraduate students under the direction of an engineering faculty advisor. The research topic will be chosen by mutual agreement of the undergraduate students and their advisor. The sequence will include a thorough literature search and review, the development of a clear and concise problem statement, consultations with other faculty and professional experts, and the derivation of publishable results. The research will culminate in a final written report and oral presentation.

ENGR 01302: Junior Engineering Clinic II 2 s.h.
Prerequisites: ENGR 01301
This is one course in a sequence of courses that will provide a meaningful research and design experience for a team of undergraduate students under the direction of an engineering faculty advisor. The research topic will be chosen by mutual agreement of the undergraduate students and their advisor. The sequence will include a thorough literature search and review, the development of a clear and concise problem statement, consultations with other faculty and professional experts, and the derivation of publishable results. The research will culminate in a final written report and oral presentation.

ENGR 01341: Fluid Mechanics I 2 s.h.
Prerequisites: (MATH 01141 or MATH 01230) and (PHYS 02200 or PHYS 00220) and (CHE 06301 with min. C-grade or ENGR 01271)
The course deals with general fluid flow and with fluid flow in pipe systems. Topics covered in the area of general fluid flow include hydrostatics, laws of fluid motion, kinematics, dynamics, energy balance, and dimensionless groups. Topics covered in the area of pipe flow include incompressible flow, compressibility, pumps, viscosity, boundary layers, turbulence, and losses. The course includes appropriate laboratory experiments and computer applications.

ENGR 01342: Engineering Fluid Mechanics 3 s.h.
Prerequisite: (MATH 01141 or MATH 01230) and (PHYS 02200 or PHYS 00220) and (CHE 06201 with minimum C-grade or ENGR 01271)
This course is designed for multidisciplinary engineering students required to have an introductory knowledge of fluid flow. This course includes all of the topics of Fluid Mechanics I (ENGR 01.341) and is equivalent to ENGR 01.341. Topics covered in the area of general fluid flow include hydrostatics, Mass and Energy Balances, incompressible inviscid and viscous flows, momentum balances and dimensionless groups. Topics covered in the area of pipe flow include incompressible and
compressible flows, fluid machinery including pumps and turbines, viscous flows, boundary layers, turbulence, and pressure losses. The course includes appropriate laboratory experiments and computer applications.

ENGR 01391: Independent Study In Engineering 0 to 4 s.h.
This course is designed for engineering students. They will conduct work under the supervision of an appropriate faculty member on engineering projects. The execution of the proposed project, including the preparation and presentation of an acceptable report of work, will be required.

ENGR 01401: Senior Engineering Clinic I 2 s.h.
Prerequisites: ENGR 01302
This course provides a culminating experience to the Engineering Clinic sequence. The goal of this sequence of courses is to give teams of undergraduate engineering students a meaningful, leading-edge, team-based, multidisciplinary project experience. The sequence will include a thorough literature search and review, the development of a clear and concise problem statement, consultations with other faculty and professional experts, and delivery of a final written report and oral presentation.

ENGR 01402: Senior Engineering Clinic II - Wi 2 s.h.
Prerequisites: ENGR 01401
This course provides a culminating experience to the Engineering Clinic sequence. The goal of this sequence of courses is to give teams of undergraduate engineering students a meaningful, leading-edge, team-based, multidisciplinary engineering project experience. The sequence will include a thorough literature search and review, the development of a clear and concise problem statement, consultations with other faculty and professional experts, and delivery of a final written report and oral presentation.

ENGR 01410: Introduction To Finite Element Analysis 3 s.h.
Prerequisites: ENGR 01272 and MATH 01236
Fundamental concepts for the development of finite element analysis are introduced. The element stiffness matrices are developed using shape functions defined on the elements. Aspects of global stiffness formation, consideration of boundary conditions, and nodal load calculations are presented. Mesh division and problem modeling considerations are discussed in detail. Topics of scalar field problems and natural frequency analysis are covered. Computer applications are included.

ENGR 01411: Introduction To Engineering Optimization 3 s.h.
Prerequisites: MATH 01236
Objective function for minimization and setting up the constraints are presented for engineering problems. Solution techniques using gradient based methods, zero order methods, and penalty techniques are discussed. Formulation and solution of linear programming, non-linear programming, integer and discrete programming problems in engineering are covered. Algorithms are implemented in computer programs for problem solution.

ME 10453: Introduction To Analytic Dynamics 3 s.h.
Prerequisites: ENGR 01291 and ME 10201 and MATH 01236
Newton/Euler and Lagrangian formulations for three-dimensional motion of particles and rigid bodies. Modern analytical rigid body dynamics equation formulation and computational solution techniques applied to mechanical multibody systems. Kinematics of motion generalized coordinates and speeds, analytical and computational determination of inertia properties, generalized forces, Lagrange's equations, holonomic and nonholonomic constraints, constraint processing, computational simulation.

ENGL 02101: Literary Studies For English Majors 3 s.h.
This course serves as an introduction to upper-level courses in the English Department and is required for freshman English majors. Using readings from all three genres, students will develop the skills and practice necessary for an analytical reading of literature and for writing critical essays about literature, using both primary and secondary sources.

ENGL 02110: Readings In British Literature 3 s.h.
Designed to give the student some idea of the scope and depth of English literature, this course deals with a limited number of writers from the earliest periods of English literature through the twentieth century. Such writers as Chaucer, Shakespeare, Milton, Swift, Wordsworth, Austen, Bronte, Dickens, Lawrence, Shaw, and Woolf are read and discussed.

ENGL 02111: Readings In Asian Literature 3 s.h.
This course provides students with some knowledge of and sensitivity to the literary traditions of India, China, and Japan. The course includes selected ancient, modern, and contemporary works from each of these three Asian cultures. Similarities and differences among these cultures, as well as between Asian and Western cultures, will be explored. Such works as the Ramayana, Shakuntala, and the Analects of Confucius, poetry of Li Po, short stories by Lu Hsun, Japanese haiku, Noh plays and short stories by modern Japanese writers will included.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>ENGL 02113</td>
<td>Readings In U.S. Literature</td>
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<td>This broad review of American literature ...</td>
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<td>ENGL 02116</td>
<td>Readings In Non-Western Literature</td>
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<td>Designed to give the student ...</td>
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<td>ENGL 02123</td>
<td>Experiencing Literature</td>
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<td>This course increases students' understanding ...</td>
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<tr>
<td>ENGL 02151</td>
<td>Readings In Shakespeare</td>
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<td>A general-education course, this class studies ...</td>
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<td>ENGL 02200</td>
<td>Women In Literature</td>
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<td>This course examines the aesthetic, ...</td>
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<td>ENGL 02216</td>
<td>African American Literature Through Harlem Renaissance</td>
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<td>This course examines African American literature</td>
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<td>ENGL 02217</td>
<td>U.S. Latino/A Literature</td>
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<td>This course surveys the development of ...</td>
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<tr>
<td>ENGL 02228</td>
<td>The Modern Short Story</td>
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<td>This course traces the development of the modern</td>
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<td>ENGL 02231</td>
<td>World Mythology</td>
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<td>World Mythology provides an introduction to ...</td>
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The study surveys representative plays written in English from several periods and cultures. It focuses on the conventions of drama as a genre of literature.

ENGL 02301: Literary Study Off-Campus
This course permits students to study literature at important literary sites in the United States and abroad under the supervision of a faculty leader. Study includes preparatory reading, attendance at theatrical productions, tours of literary locales, writers' homes, and visits to the area's other important historical and cultural sites. Travel and program costs are borne by the students.

ENGL 02309: British Literature To Romanticism
Prerequisites: COMP 01112
This course surveys the key developments and trends in British literature and language from the eighth century to the eighteenth by examining representative canonical and noncanonical literary works. The course begins with Beowulf and ends after Dr. Johnson, tracing the wealth and variety of a thousand years of poetry, drama, and prose, beginning with the earliest writings in Old English, through the Middle Ages, the Renaissance, the Restoration, and on to the close of the Neoclassical period in the 18th century. It considers traditional "periods" and new theories and classifications of English literature. Students will learn about historical and theoretical contexts underlying the assigned readings and, in addition to proving their competence on required papers and tests, will complete a signature assignment that will demonstrate a synthesis of critical thinking, reading, and writing.

ENGL 02311: British Literature Since Romanticism
Prerequisites: COMP 01112
This course, intended for English majors and minors, surveys the key developments and trends in British literature and language from the late eighteenth century to the present by examining representative canonical and emerging literary works. It closely studies the relationship between literature and the specific social, political, and economic concerns it reflects. Beginning with Wordsworth, this course surveys the major writers - and also some minor ones - of the Romantic, Victorian, and Modern periods, including poets, novelists, dramatists, and prose essayists. It includes Irish and some contemporary postcolonial writers. Students will learn about historical and theoretical contexts underlying the assigned readings and, in addition to proving their competence on required papers and tests, will complete a signature assignment that will demonstrate a synthesis of critical thinking, reading, and writing.

ENGL 02313: Us Literature To Realism
Prerequisites: COMP 01112
This survey, intended for English majors and minors, highlights literature in the colonial, revolutionary, and early national periods and the first half of the nineteenth century. Designed for English majors and minors, it emphasizes such writers as Edwards, Wheatley, Bradstreet, Franklin, Emerson, Thoreau, Jacobs, Poe, Douglass, Melville, Hawthorne, Dickinson, and Whitman. Students will study the relationship between literature and the specific social, political, and economic concerns it reflects. Students will learn about historical and theoretical contexts underlying the assigned readings and, in addition to proving their competence on required papers and tests, will complete a signature assignment that will demonstrate a synthesis of critical thinking, reading, and writing.

ENGL 02314: Us Literature Since Realism
Prerequisites: COMP 01112
This survey, intended for English majors and minors, highlights subjects such as the rise of realism and naturalism, the modernist revolution, and post-modernism. This course also investigates and defines the major themes and the developing forms of American fiction, drama, and poetry in a survey of such authors as Twain, Howells, James, Chopin, Wharton, Hurston, Crane, Dreiser, Frost, O'Neill, Hemingway, Faulkner, Eliot, Stevens, Williams, Stein, Lowell, Barthelme, Morrison, Alexie, Cisneros, and Erdrich. Students will learn about historical and theoretical contexts underlying the assigned readings and, in addition to proving their competence on required papers and tests, will complete a signature assignment that will demonstrate a synthesis of critical thinking, reading, and writing.

ENGL 02316: African American Literature Since Harlem Renaissance
Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101
This course examines themes and issues commonly found in African American literature published since the Harlem Renaissance. We will analyze such theories of racial consciousness as invisibility, Black Power, and the Black Aesthetic, bearing in mind how certain historical, political, social, and cultural factors influenced the literature. While understanding the complex notions of race will be our focus, we will also consider how (or if) racial identity blends with other key components of the self such as gender, class, and nationality. We will read a variety of texts— from novels and plays to poetry and song lyrics - by authors Richard Wright, Gwendolyn Brooks, Ralph Ellison, Lorraine Hansberry, Malcolm X, August Wilson, Toni Morrison, Edwidge Danticat, Percival Everett, and others.
ENGL 02317: Children's Literature: Texts And Contexts 3 s.h.
Prerequisites: ENGL 02101 which may be taken concurrently, COMP 01111 or COMP 01105, and COMP 01112
This course will introduce students to a range of literature written for children from the eighteenth through the twenty-first century. Students will place the literary works in historical and cultural context to analyze how changing constructions of childhood and adulthood shape the texts children read. This course may not be offered annually.

ENGL 02322: Literature Of The American Renaissance 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101
This course focuses on the literature of the American Renaissance (1830-1860). This study of works by writers like Cooper, Bryant, Irving, Poe, Emerson, Douglass, Thoreau, Hawthorne, Melville, Longfellow, Whitman, Stowe, Jacobs, and Dickinson will cover the three major characteristics of the period: the movement from classicism to romanticism in the early writers; the development of literary nationalism, and an increasing interest in exploring what it means to be an American; and, finally, the beginnings of literary realism with the approach of the Civil War. This course may not be offered annually.

ENGL 02324: American Realism And Naturalism 3 s.h.
Prerequisites: ENGL 02101 which allows concurrency, and (COMP 01111 or COMP 01105) and COMP 01112
Students will read U.S. fiction produced between 1865 and 1914, studying its rejection of popular romanticism and its advocacy of a representational style concurrent with an increasingly urban, industrial society. Realist writers may include W.D. Howells, Mark Twain, Henry James, Charles Chesnutt, Kate Chopin, and Willa Cather. Naturalist writers may include Stephen Crane, Theodore Dreiser, Jack London, and early Edith Wharton.

ENGL 02327: Modern American Poetry 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101
This course studies poets as varied as Eliot, Williams, Crane, Stevens, Frost, Rich, Moore, Plath, Brooks, Bly, and Ginsberg. Among our concerns are subject, form, and critical reactions. ENGL 02330 3 s.h.

ENGL 02330: Classical Literature In Translation 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101
This course covers works by Homer, Aeschylus, Sophocles, Euripides, Plato, Thucydides, Lucretius, Virgil, Horace, Ovid, and Catullus. Students learn why these figures are truly classic: they provide the indispensable foundation for much of Western intellectual history. This course may not be offered annually.

ENGL 02338: Special Topics In Non-Western Literature 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
This course focuses on significant literary works generally omitted from the Western canon. In this course students will gain an in-depth understanding and appreciation of the literature and cultures outside of North America and Europe. The changing topic and texts will be chosen by faculty and may cover the literature of Africa, Asia, Latin America, and/or the Caribbean. This course may not be offered annually.

ENGL 02340: Literary Theory 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101
Literary Theory provides an introduction to a variety of theories about both the roles of literature and how it should be read. The course may cover Ancient Greek, neo-Platonist, Renaissance, Romantic, Victorian, New Critical, Psychoanalytical, Marxist, Feminist, Deconstructive and other postmodern theories. Students will both analyze these theories and use them for interpreting a variety of literary texts.

ENGL 02345: Shakespeare I 3 s.h.
Prerequisites: COMP 01112
This course, intended for English majors and minors, focuses on the first part of Shakespeare's career. It considers traditional and emerging critical approaches to the plays as "drama" and as "theatre." It covers such early and middle plays as Richard III, The Merchant of Venice, Henry IV, As You Like It, and one major later tragedy, with an emphasis on historical and theoretical contexts underlying character, theme, style, language development, and various aspects of performance. It also examines the social, cultural, and political contexts of Shakespeare's plays for early modern and twenty-first century audiences. In addition to proving their competence on required papers and tests, students will complete a signature assignment that will demonstrate a synthesis of critical thinking, reading, and writing.

ENGL 02350: Shakespeare II 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101
This course studies the more complex plays written after 1600, among them Hamlet, Lear, Measure for Measure, Antony & Cleopatra, and The Tempest. As in Shakespeare I--though perhaps on a more intensive level--the course emphasizes such elements as character, theme, and text.
ENGL 02392: Independent Study (English) 
3 to 6 s.h.
The course gives students an opportunity to study independently in order to strengthen their background in a particular area of literary studies.

ENGL 02393: English Seminar I - Writing Intensive 
Prerequisites: ENGL 02101 
3 s.h.
This course is required of all English majors in the junior year. Each seminar deals with a particular writer, theme, or problem in literature or language and is designed to develop the students' ability to write clearly, logically, and cogently.

ENGL 02394: English Seminar II - Writing Intensive 
Prerequisites: ENGL 02101 and ENGL 02393 
3 s.h.
This capstone course is required of all English majors in their senior year. Each seminar enables a small group of students to investigate intensively an area of literature under a professor competent in the field. While subjects vary annually, all seminars emphasize individual guidance, class discussion, oral and written reports, and require a long research paper.

ENGL 02410: Internship In English 
3 s.h.
This course provides the opportunity for students majoring in English to apply the skills they have developed in the course of their studies in a supervised work situation. Students will create a portfolio, keep journals, and meet with the faculty internship coordinator regularly. This course may be utilized within the 24-hour free elective distribution only.

ENGL 02417: Special Topics In Literature 
Prerequisites: ENGL 02101 and COMP 01112 
3 s.h.
This course focuses on significant literary works, themes, periods, writers, or genres not normally taught or covered in the traditional upper-level electives. Repeatable when topics vary. This course may not be offered annually.

ENGL 02421: The English Novel 
Prerequisite: COMP 01111 and COMP 01112 and ENGL 02101 
3 s.h.
This course studies the English novel from its inception to the present. It analyzes style, structure, characterization, and theme; it stresses the novel as a relevant social document. Richardson, Fielding, Austen, Bronte, Thackeray, Dickens, Hardy, Lawrence, and Joyce are among those novelists taught. This course may not be offered annually.

ENGL 02423: The American Novel 
Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101 
3 s.h.
This course investigates the development of American novelists' contributions to this art form by focusing on the themes and techniques of major American works. It focuses on writers such as Hawthorne, Melville, Twain, Howells, James, Wharton, Dreiser, Cather, Hemingway, Fitzgerald, Faulkner, and Wright.

ENGL 02424: American Dramatists 
Prerequisites: COMP 01111 and COMP 01112 
3 s.h.
Among the significant dramatists this course considers are such older figures as O'Neill, Odets, Hellman, Williams, Miller, and Albee; and such newer figures as Mamet, Guare, Shepard, Lanford Wilson, August Wilson, and Hansberry. This course may not be offered annually.

ENGL 02425: Contemporary Literature 
Prerequisites: COMP 01111 and COMP 01112 
3 s.h.
This course, an upper-level elective, explores literature written within the students' lifetimes, enabling students to gain fluency in different ways of reading and different kinds of writing. Students will explore the social relevance of texts and of the act of reading as they examine the recent developments in the literary tradition, especially as they may relate to issues of race, class, gender, sexuality, political hegemonies, and current literary theory. This course may not be offered annually.

ENGL 02430: Anglo-Saxon And Medieval Literature 
Prerequisites: ENGL 02101 
3 s.h.
This course studies the foundations of English language and literature from its beginnings through the fifteenth century, proceeding from the relatively limited selection of Anglo-Saxon poetry and prose to the profusion of literary genres extant in the Middle Ages. Although almost all texts will be read in translation, some attention will be devoted to understanding the major characteristics of the Anglo-Saxon language and Middle English. Selections from continental writers of the period may also be included. This course may not be offered annually.
### Course Descriptions

**ENGL 02440:** Chaucer
*Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101*

This course serves as an introduction to the poetry of Chaucer, to the language which he used, and to the times in which he lived. Typically, readings are taken from *The Canterbury Tales* and *Troilus and Criseyde*. This course may not be offered annually.

**ENGL 02441:** English Renaissance Literature
*Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101*

The content of this course may vary from year to year according to the needs and interests of the students. Studies may be made of the epic, the lyric, drama (non-Shakespearean), fiction, or other literary types, always against a background of Renaissance ideas. This course may not be offered annually.

**ENGL 02460:** Restoration And 18th-Century British Literature
*Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101*

This course studies poetry, non-fiction prose, and drama from 1660 to 1798. This course may not be offered annually.

**ENGL 02471:** English Romanticism
*Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101*

This course studies the major figures of the English Romantic period. It pays particular attention to the poetry of Blake, Wordsworth, Coleridge, Byron, Shelley, and Keats, in an effort to define, analyze, and understand this important literary and social movement. This course may not be offered annually.

**ENGL 02472:** Victorian Literature
*Prerequisites: COMP 01111 and COMP 01112*

This course concentrates upon the major works of English poetry and non-fictional prose from 1830 to 1900. Readings center upon such major figures as Tennyson, Browning, Arnold, Carlyle, Ruskin, Mill, and Newman. Lectures and discussions clarify the readings and indicate the relation of the literature to the most important intellectual movements of the century. This course may not be offered annually.

**ENGL 02473:** Twentieth Century British Literature
*Prerequisites: COMP 01111 and COMP 01112 and ENGL 02101*

This course studies and discusses the works of leading poets, playwrights, and novelists--such figures as Woolf, Shaw, Lawrence, Yeats, Joyce, Stoppard, Hughes, Heaney, and Friel. It places some emphasis on the relationship between this literature and the historical, economic, and social background of the period. This course may not be offered annually.

**ENGL 02482:** Modern European Literature
*Prerequisites: COMP 01111 and COMP 01112*

This course emphasizes the relation between literature and contemporary life--political, social, and philosophic. It studies movements such as realism, expressionism, relativism, and existentialism, examining such authors as Ibsen, Strindberg, Pirandello, Zamiatin, Sartre, Camus, Kafka, Beckett, Ionesco, and Weiss. This course may not be offered annually.

**ENGL 05301:** American English Grammar

This course emphasizes traditional grammar and seeks to give the student a practical understanding of the structure of contemporary American English grammar. Procedures include lecture, class discussion, and the working out of grammatical problems, including sentence diagramming.

**AFRI 16440:** Special Topics In Foreign Languages And Literatures
*Prerequisites: appropriate language proficiency as determined by the professor*

This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Each semester the instruction of this course rotates among faculty members who select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.

**ARAB 12101:** Elementary Arabic I

This is a comprehensive foundation course for beginning students of Modern Standard Arabic. It offers an essential grounding for developing successful communication strategies by practicing listening comprehension and speaking skills with the sounds and characteristics of Arabic. It will also provide students with opportunities to read and write simple Arabic prose to meet their communication needs. It introduces students to the culture and history of the Arabic speaking world.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td><strong>ARAB 12102:</strong></td>
<td>Elementary Arabic II</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> ARAB 12101</td>
<td>(Continuation of Elementary Arabic I) This course provides an expanded overview of the syntax, structures and vocabulary of Modern Standard Arabic, including extended practice in the four skill areas of listening comprehension, speaking, reading and writing. It introduces students to the culture and history of the Arabic-speaking world.</td>
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<tr>
<td><strong>ARAB 12440:</strong></td>
<td>Special Topics In Foreign Languages And Literatures</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> appropriate language proficiency as determined by the professor</td>
<td>This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Each semester the instruction of this course rotates among faculty members who select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.</td>
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<tr>
<td><strong>CHIN 07101:</strong></td>
<td>Elementary Chinese I</td>
<td>3 s.h.</td>
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<td>This is a beginning course in Chinese (Mandarin) for students who have not previously studied the language. It covers the mechanics of the Chinese language, including intensive practice in listening comprehension and speaking. It will also introduce students to basic Chinese reading and writing skills.</td>
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<tr>
<td><strong>CHIN 07102:</strong></td>
<td>Elementary Chinese II</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> CHIN 07101</td>
<td>This is a beginning course in Chinese (Mandarin) for students who have taken Elementary Chinese I. It covers the mechanics of the Chinese language including intensive practice in listening comprehension and speaking. It will also offer exercises for students to develop skills in reading and writing the language.</td>
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<tr>
<td><strong>CHIN 07201:</strong></td>
<td>Intermediate Chinese I</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> CHIN 07101 and CHIN 07102</td>
<td>This intermediate level Chinese language course provides students the opportunity to develop further their listening comprehension and competence in spoken Chinese, their ability to engage in more substantial conversations in a variety of learning, work, and social settings. It will also help students build and utilize their knowledge of the Chinese way of life culture in conjunction with learning the notions and functions of the language. The course also focuses on students' ability to read and write simple Chinese prose for their communication needs.</td>
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<tr>
<td><strong>CHIN 07201:</strong></td>
<td>Intermediate Chinese II</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> CHIN 07101 and CHIN 07102 and CHIN 07201</td>
<td>Intermediate Chinese II continues to provide students the opportunity to develop further their competence in listening comprehension and in spoken Chinese, their ability to engage in more substantial conversations in additional learning, work and social settings. It will advance and enrich their knowledge of Chinese culture enabling them to understand how to function in a culturally appropriate manner and to develop and appreciate more subtlety in language use. The course continues to help students improve their ability to read and write simple Chinese prose for their communication needs.</td>
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<tr>
<td><strong>CHIN 07400:</strong></td>
<td>Independent Study - Chinese III</td>
<td>3 s.h.</td>
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<tr>
<td><strong>CHIN 07440:</strong></td>
<td>Special Topics In Foreign Languages And Literatures</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> appropriate language proficiency as determined by the professor</td>
<td>This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Each semester the instruction of this course rotates among faculty members who select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.</td>
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<tr>
<td><strong>FREN 02100:</strong></td>
<td>Masterpieces Of French Literature In English Translation</td>
<td>3 s.h.</td>
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<td>This course introduces students to the reading of French literary works in English translation. Students acquire a vocabulary of basic critical terms necessary for the discussion and analysis of narrative works, poetry and theatrical texts. Through close reading of several texts per genre, students develop critical thinking skills and improve expository speaking and writing skills.</td>
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<tr>
<td><strong>FREN 02101:</strong></td>
<td>Elementary French I</td>
<td>3 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> FREN 02101</td>
<td>This is a beginning course in French for students who have not previously studied French. This course covers the mechanics of the French language including intensive practice in listening comprehension, speaking, reading and writing.</td>
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</tbody>
</table>
Course Descriptions

FREN 02102: Elementary French II 3 s.h.
Prerequisites: FREN 02101
(Continuation of French I) This course focuses on the students' continued development of communicative competence in French with emphasis on the four skill areas of speaking, reading, writing and listening comprehension.

FREN 02201: Intermediate French I 3 s.h.
Prerequisites: FREN 02102
This course is open to students who have had some limited contact with the French language. It offers expanded practice in listening comprehension, speaking, reading and writing.

FREN 02205: Oral French 3 s.h.
Prerequisites: FREN 02211
An intermediate-level conversation course which develops a broad range of active vocabulary as well as verbal patterns leading to greater facility in manipulating the spoken language.

FREN 02211: Intermediate French II 3 s.h.
Prerequisites: FREN 02201
This course is open to students who have had some limited contact with the French language. It offers expanded practice in listening comprehension, speaking, reading and writing.

FREN 02212: French Reading And Composition 3 s.h.
Prerequisites: FREN 02211
This course offers a broad grammar review based on readings, practical use of the language, written compositions and dictations.

FREN 02300: French Phonetics 3 s.h.
Prerequisites: FREN 02211
This course provides a scientific study of French based upon the international phonetic system. It emphasizes diction and phonetic transcription and the correction of individual problems in pronunciation.

FREN 02311: Advanced French Conversation 3 s.h.
Prerequisites: FREN 02212
This course provides practice in speaking French at conversational speed. It emphasizes clarity and fluency of expression. Classes include discussions in French on topics of contemporary interest. The class uses both formal and informal methods to broaden students' vocabulary and enhance their speaking skills.

FREN 02315: Introduction To French Literature 3 s.h.
Prerequisites: FREN 02212
This course presents selected representative works of French literature within their social and cultural setting from the Middle Ages to the 19th century in original French texts. The course enhances listening comprehension, speaking, reading and writing proficiency through literature.

FREN 02320: French Civilization And Culture 3 s.h.
Prerequisites: FREN 02212
This course provides students with a more profound insight into the varied aspects of contemporary France, its civilization and culture.

FREN 02324: Appreciation Of French Literature 3 s.h.
Prerequisites: FREN 02212
This course introduces students to the reading of French literary texts. Students acquire a vocabulary of basic critical terms necessary for the discussion and analysis of narrative works, poetry and theatrical texts. Through close reading of at least one text per genre, students develop critical approaches with emphasis on the "Explication de Texte" method.

FREN 02325: Readings In Contemporary French Literature 3 s.h.
Prerequisites: FREN 02212
This course deals with the main currents shaping contemporary French literature. It selects readings which best bring into focus the characteristics of the time. It emphasizes reading as communication, with analysis and practice of the techniques of effective reading in French.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>FREN 02326</td>
<td>The French Novel</td>
<td>3 s.h.</td>
<td>FREN 02212</td>
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<td>This course consists of an analysis of the French novel from the beginning to the present day. Students read and discuss selected major works.</td>
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<tr>
<td>FREN 02400</td>
<td>History Of The French Language</td>
<td>3 s.h.</td>
<td>FREN 02212</td>
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<td></td>
<td>This course gives students an overview of the historical evolution of French from its Latin roots to present-day varieties spoken in France and the Francophone cultures. It provides an introduction to the science of linguistics.</td>
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<tr>
<td>FREN 02410</td>
<td>Advanced French Composition</td>
<td>3 s.h.</td>
<td>FREN 02212</td>
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<td>This course provides a systematic study of the problems of translation and of the practical application of written patterns, thus encouraging greater command of writing skills. It gives considerable attention to stylistics.</td>
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<tr>
<td>FREN 02420</td>
<td>Evolution Of French Civilization</td>
<td>3 s.h.</td>
<td>FREN 02212</td>
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<td></td>
<td>This course surveys French history, art and social institutions as well as the contributions of France to Western Civilization.</td>
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<tr>
<td>FREN 02421</td>
<td>The French Short Story</td>
<td>3 s.h.</td>
<td>FREN 02212</td>
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<td>This course analyzes the French short story in its various aspects. It studies in detail selected works of major authors in the genre.</td>
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<tr>
<td>FREN 02435</td>
<td>Individual Study (French)</td>
<td>3 to 6 s.h.</td>
<td>FREN 02212</td>
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<td>Students may contract with an instructor to be examined on assigned readings in various areas of French literature. Non-minors may do the readings in translation; French minors must do the readings in French. No more than 3 semester hours may be taken in any one semester.</td>
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<tr>
<td>FREN 02440</td>
<td>Special Topics In Foreign Languages And Literatures</td>
<td>3 s.h.</td>
<td>appropriate language proficiency as determined by the professor</td>
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<td></td>
<td>This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Each semester the instruction of this course rotates among faculty members who select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.</td>
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<tr>
<td>GERM 03100</td>
<td>Masterpieces Of German Literature In English Translation</td>
<td>3 s.h.</td>
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<td>This course introduces students to German literature in English translation. Using readings from a range of literary genres, students acquire knowledge of the basic critical terms necessary for the discussion and analysis of narrative works, poetry and theatrical texts. Through close reading of such works, students develop an appreciation of the cultural and sociopolitical forces that inform German-speaking civilization.</td>
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<tr>
<td>GERM 03101</td>
<td>Elementary German I</td>
<td>3 s.h.</td>
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<td></td>
<td>This beginning course is open to students who have not previously studied German. This course covers mechanics of the language, including intensive practice in listening comprehension, speaking, reading and writing.</td>
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<tr>
<td>GERM 03102</td>
<td>Elementary German II</td>
<td>3 s.h.</td>
<td>GERM 03101</td>
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<td></td>
<td>(Continuation of Elementary German I) This course focuses on the students' continued development of communicative competence in German with emphasis on the four skill areas of speaking, reading, writing and listening comprehension.</td>
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<tr>
<td>GERM 03201</td>
<td>Intermediate German I</td>
<td>3 s.h.</td>
<td>GERM 03102</td>
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<td></td>
<td>This course is open to students who have had some limited contact with the German language. It offers expanded practice in listening comprehension, speaking, reading and writing.</td>
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</tbody>
</table>
GERM 03211: Intermediate German II
Prerequisites: GERM 03201
This course is open to students who have had some limited contact with the German language. It offers expanded practice in listening comprehension, speaking, reading and writing.

GERM 03212: German Reading And Composition
Prerequisites: GERM 03211
This course offers a broad grammar review based on readings, practical use of the language, written compositions and dictations.

GERM 03320: German Civilization And Culture
This course surveys German history, arts and social institutions as well as Germany's contributions to Western civilization.

GERM 03440: Special Topics In Foreign Languages And Literatures
Prerequisites: appropriate language proficiency as determined by the professor
This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Each semester the instruction of this course rotates among faculty members who select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.

ITAL 04101: Elementary Italian I
This introductory course is open to students who have not previously studied Italian. This course studies Italian language structures and patterns and offers practice in articulating these patterns. It also gives some attention to other language skills, such as listening comprehension, speaking, reading and writing.

ITAL 04102: Elementary Italian II
Prerequisites: ITAL 04101
(Continuation of Elementary Italian I) This course focuses on the students' continued development of communicative competence in Italian with emphasis on the four skill areas of speaking, reading, writing and listening comprehension.

ITAL 04201: Intermediate Italian I
Prerequisites: ITAL 04102
This course is open to students who have had some limited contact with the Italian language. It surveys grammar and language patterns and offers expanded practice particularly in speaking and reading in the language.

ITAL 04211: Intermediate Italian II
Prerequisites: ITAL 04201
This course is open to students who have had some limited contact with the Italian language. It surveys grammar and language patterns and offers expanded practice particularly in speaking and reading in the language.

ITAL 04440: Special Topics In Foreign Languages And Literatures
Prerequisites: appropriate language proficiency as determined by the professor
This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Each semester the instruction of this course rotates among faculty members who select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.

JAPA 08101: Elementary Japanese I
This is a comprehensive foundation course for beginning students of modern Japanese. It offers an essential grounding for developing successful communication strategies by practicing listening comprehension and speaking skills, emphasizing the sounds and speech patterns of Japanese. It will also provide students with opportunities to read and write simple Japanese prose to meet their communication needs. It introduces students to the culture and history of the Japanese-speaking world.

JAPA 08102: Elementary Japanese II
Prerequisites: JAPA 08101
This course provides an expanded overview of the syntax, structures and vocabulary of modern Japanese, including extended practices in the four skill areas of listening comprehension, speaking, reading and writing. It introduces students to and amplifies their knowledge of the culture and history of Japan.
Course Descriptions

JAPA 08201: Intermediate Japanese I 3 s.h.
Prerequisite: JAPA 08102
This course continues to provide an expanded overview of the syntax, structures, and vocabulary of modern Japanese to students who have completed the Elementary Japanese course sequence and acquired basic knowledge of the Japanese language. It also provides students with enhanced opportunities to learn and experience the culture and history of Japan.

JAPA 08211: Intermediate Japanese II 3 s.h.
Prerequisite: JAPA 08201
This course is a continuation of Intermediate Japanese I (JAPA 08.201) and focuses on learning modern Japanese with equal emphasis on speaking, listening comprehension, reading and writing. It also provides students further opportunities to learn and experience in depth the culture and history of Japan.

LAT 09101: Elementary Latin I 3 s.h.
This is a beginning course in Latin. It emphasizes Latin grammar and vocabulary. Students will also read representative Latin prose selections, including the writings of Caesar.

LAT 09102: Elementary Latin II 3 s.h.
Prerequisite: Latin 09101
This is a beginning course in Latin continuing from Elementary Latin I. It emphasizes Latin grammar and vocabulary. Students will also read representative Latin prose selections, including the writings of Caesar.

LAT 09440: Special Topics In Foreign Languages And Literatures 3 s.h.
Prerequisite: appropriate language proficiency as determined by the professor
This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Each semester the instruction of this course rotates among faculty members who select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.

RUSS 06101: Elementary Russian I 3 s.h.
This beginning course is open to students who have not previously studied Russian. It covers mechanics of the language, practice in articulating Russian speech patterns and reading and writing in Russian.

RUSS 06102: Elementary Russian II 3 s.h.
Prerequisite: RUSS 06101
(Continuation of Elementary Russian I) This course focuses on the emphasis on the students’ continued development of communicative competence in Russian with emphasis on the four skill areas of speaking, reading, writing and listening comprehension.

RUSS 06201: Intermediate Russian I 3 s.h.
Prerequisite: RUSS 06102
This course is open to students who have had some limited contact with the Russian language. It surveys grammar and offers expanded practice, particularly in speaking and reading.

RUSS 06211: Intermediate Russian II 3 s.h.
Prerequisite: RUSS 06.201
This course is open to students who have had some limited contact with the Russian language. It surveys grammar and offers expanded practice, particularly in speaking and reading.

RUSS 06345: Russian Literature In Translation I 3 s.h.
This course studies the major works of Russian prose, poetry and drama of the 18th and 19th Centuries in the context of political, cultural and intellectual history.

RUSS 06347: Women In Russian Literature (In Translation) 3 s.h.
This course presents the image and role of Russian women from the 18th to the 20th centuries as reflected in Russian literature. The language of instruction is English.

RUSS 06440: Special Topics In Foreign Languages And Literatures 3 s.h.
Prerequisite: appropriate language proficiency as determined by the professor
This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Each semester the instruction of this course rotates among faculty members who select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.
Course Descriptions

SPAN 05100: Masterpieces Of Hispanic Literature In English Translation 3 s.h.
This course introduces students to the reading of Hispanic literary works in English translation. Students acquire a vocabulary of basic critical terms necessary for the discussion and analysis of narrative works, poetry and theatrical texts. Through close reading of several texts per genre, students develop critical thinking skills and improve expository writing and speaking skills.

SPAN 05101: Spanish I 3 s.h.
(No prerequisite) This course introduces the Spanish language and focuses on the students' development of communicative competence in Spanish with emphasis on the four skill areas of listening, comprehension, speaking, reading and writing.

SPAN 05102: Spanish II
Prerequisites: SPAN 05101
(Continuation of Spanish I) This course focuses on the students' continued development of communicative competence in Spanish with emphasis on the four skill areas of speaking, reading, writing and listening comprehension.

SPAN 05104: Accelerated Business Spanish I 3 s.h.
This course introduces the Spanish language and focuses on the students' development of communicative competence in Spanish with emphasis on the four skill areas of listening comprehension, speaking, reading and writing. It is also designed to introduce students to the Spanish-speaking business world through practical activities and business-related vocabulary and concepts. The course is designed to complement the business student's curriculum in a practical, accelerated method of delivery.

SPAN 05106: Accelerated Business Spanish II
Prerequisites: SPAN 05104 and/or SPAN 05101
(Continuation of Accelerated Business Spanish I) This course focuses on the students' continued development of communicative competence in Spanish with emphasis on the four skill areas of listening comprehension, speaking, reading and writing. It is also designed to continue introducing students to the Spanish-speaking business world through practical activities and business-related vocabulary and concepts. The course is designed to complement the business student's curriculum in a practical, accelerated method of delivery.

SPAN 05201: Spanish III
Prerequisites: SPAN 05102
(Continuation of Spanish I and II) This course focuses on the students' continued development of communicative competence in Spanish with emphasis on the four skill areas of speaking, reading, writing and listening comprehension.

SPAN 05203: Accelerated Business Spanish III
Prerequisites: SPAN 05104 and/or SPAN 05102
(Continuation of Accelerated Business Spanish I and II) This course focuses on the students' continued development of communicative competence in Spanish with emphasis on the four skill areas of listening comprehension, speaking, reading and writing. It is also designed to increase students' understanding of the Spanish-speaking business world through practical activities and business-related vocabulary and concepts. The course is designed to complement the business student's curriculum in a practical, accelerated method of delivery.

SPAN 05211: Spanish Reading And Conversation
Prerequisites: SPAN 05201
This course focuses on the students' continued development of communicative competence in Spanish with practice in the four skill areas of speaking, reading, writing and listening comprehension, in addition to greater emphasis on reading skills and oral production.

SPAN 05212: Spanish Reading And Composition
Prerequisites: SPAN 05211
This course focuses on the students' continued development of communicative competence in Spanish with special emphasis on written communication. Students will produce descriptive, narrative and expository texts.

SPAN 05221: Accelerated Business Spanish Reading & Conversation
Prerequisites: SPAN 05203 and/or SPAN 05201
This course focuses on the students' continued development of communicative competence in Spanish with practice in the four skill areas of listening comprehension, speaking, reading and writing. It places greater emphasis on reading skills centered on business-related texts and also on oral production concerning business-related situations. In addition, it is designed to increase students' understanding of the Spanish-speaking business culture through practical activities and business-related vocabulary and concepts. It complements the business student's curriculum through a practical, accelerated method of delivery.
SPAN 05250: Introduction To Anthropological Linguistics 3 s.h.
Students in this interdisciplinary course will engage in the scientific study of language with particular reference to the relationships among the languages, thoughts, and cultures of speech communities living all over the world, including within the United States, France, India, Canada, Spain, Japan and Peru, among others. Additional course topics include the process of human language acquisition, structures of human language, bilingualism and the ways in which race, class, gender, and other social characteristics may be displayed through the use of language.

SPAN 05300: Spanish Phonetics 3 s.h.
Prerequisites: SPAN 05212
This course provides a scientific study of Spanish pronunciation based upon the international phonetic system. It emphasizes exercises in diction and phonetic transcription and the correction of individual problems in pronunciation.

SPAN 05301: Appreciation Of Hispanic Literature 3 s.h.
Prerequisites: SPAN 05212
This course introduces students to the reading of Hispanic literary texts. Students acquire a vocabulary of basic critical terms necessary for the discussion and analysis of narrative works, poetry, and theatrical texts. Through close reading of at least one text per genre, students develop critical approaches with emphasis on the "comentario de textos" method.

SPAN 05302: Introduction To Hispanic Linguistics 3 s.h.
Prerequisites: SPAN 05301
This course will introduce students to the major subfields of Hispanic linguistics, including phonology (sound structure), morphology (word structure), syntax (sentence structure), semantics (structure of meaning), pragmatics (language use), language change and sociolinguistics (language use among speakers with different social and geographical backgrounds).

SPAN 05305: Oral Spanish 3 s.h.
Prerequisites: SPAN 05211
This course is open to students who wish to improve their spoken Spanish skills. Its design reflects the objectives of current national trends in encouraging oral Spanish production as outlined and measured by the ACTFL standards. Students will develop greater grammatical accuracy and control, the ability to describe and narrate, and greater facility in the production of sentences and oral paragraphs.

SPAN 05312: Spanish For Business A 3 s.h.
Prerequisites: SPAN 05212 or SPAN 05221
This course is designed to help students interact with Hispanic communities on a business level, by improving their verbal and written skills, and exposing them to authentic print and visual media from the world of banking, advertising, and commerce. It stresses the development of functional language skills for real-life purposes within an accurate cultural context that reflects the variety of the Hispanic world.

SPAN 05313: Spanish For Medical Personnel 3 s.h.
Prerequisites: SPAN 05212
This course is designed to give students and practicing medical personnel the conversational and cultural tools they need to interact with Hispanic communities in a clinical setting. It stresses the development of functional language skills while addressing the special concerns of medical personnel with Spanish-speaking patients and their families in hospitals, emergency rooms, doctors' offices and clinics.

SPAN 05314: Spanish For Business B 3 s.h.
Prerequisites: SPAN 05212 or SPAN 05221
This course is designed to help students interact with Hispanic communities on a business level, by improving their verbal and written skills, and exposing them to authentic print and visual media. Areas of study include the various hispanic business cultures concerning human resources, labor relations, marketing, finance, goods and services, imports and exports.

SPAN 05320: Spanish Civilization And Culture 3 s.h.
Prerequisites: SPAN 05301
This course provides an overview of the religious, political, artistic and social history of Spain.

SPAN 05321: Survey Of Spanish Literature I 3 s.h.
Prerequisites: SPAN 05301
This course studies texts, beginning with the Middle Ages and continuing to the mid-eighteenth century, examining their relevance in the historical and literary movements of their time.
### Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>SPAN 05322</td>
<td>Survey Of Spanish Literature II</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td></td>
<td>This course is a continuation of SPAN 05.321 covering works from the mid-eighteenth century to the present.</td>
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<tr>
<td>SPAN 05323</td>
<td>Survey Of Spanish American Literature I</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td></td>
<td>This course is a historical overview of Spanish American literature in its cultural, sociological, biographical and formal make-up across many different genres from the Conquest to the precursors of Spanish American Modernism.</td>
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<tr>
<td>SPAN 05324</td>
<td>Spanish American Civilization And Culture</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td></td>
<td>This course is an overview of cultural, social, political and economic history of the different major periods that have shaped Spanish America through tradition, process and crisis.</td>
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<tr>
<td>SPAN 05325</td>
<td>Readings In Contemporary Spanish Literature</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td>This course examines Peninsular works of various genres from contemporary Spanish writers.</td>
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<tr>
<td>SPAN 05326</td>
<td>Spanish Novel</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td>This course studies the novel in Spain and its most outstanding characteristics, with reading and discussion of some of the best known writers from the Golden Age to the 19th century.</td>
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<tr>
<td>SPAN 05327</td>
<td>Spanish American Poetry</td>
<td>3 s.h.</td>
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<td>Students are introduced to the various movements and philosophies of Spanish American poetry which begin to take shape in Spanish American Modernism and continue through the twentieth and twenty-first centuries. Students will examine its genesis and evolution as it adapts and reacts to socio-cultural, geographic and political issues.</td>
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<tr>
<td>SPAN 05328</td>
<td>Spanish-American Theater</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td>This course examines Spanish American drama in both its textual and performance aspects, tracing its relationships to ethics, society, history, culture and contemporary public issues. Representative works from the European tradition as well as non-traditional, regional and vanguard theater will be examined.</td>
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<tr>
<td>SPAN 05329</td>
<td>Survey Of Spanish American Literature II</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td></td>
<td>This course is a historical overview of Spanish American literature in its cultural, sociological, bibliographical and formal make-up across many different genres from the consolidation of Spanish American Modernism to Contemporary literature.</td>
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<tr>
<td>SPAN 05340</td>
<td>Introduction To Spanish Translation</td>
<td>3 s.h.</td>
<td>SPAN 05212</td>
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<td>Beyond acquiring the basic skills necessary for professional Spanish-to-English and English-to-Spanish translation, students of this course will improve their Spanish and English reading comprehension skills, sharpen their insight into the linguistic nature of both Spanish and English, gain knowledge regarding the ways in which both languages communicate cultural values and become acquainted with social and geographical variations of both languages. In addition, students will acquire experience in translating general material, such as from magazines, newspapers, and letters, and specialized material from the fields of literature, business, medicine, law, and the social sciences.</td>
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<tr>
<td>SPAN 05381</td>
<td>Contemporary Spanish Theater</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td>This course introduces students to recent trends in Peninsular drama beginning with the initial manifestations of formal renovation towards the beginning of the twentieth century and continuing through to present-day Spain.</td>
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<tr>
<td>SPAN 05383</td>
<td>Spanish-American Short Story</td>
<td>3 s.h.</td>
<td>SPAN 05301</td>
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<td>This course analyzes a selection of Spanish American short stories and their relation to culture, aesthetics and modernity, covering a wide variety of authors, both canonical and vanguard.</td>
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<td>Course Code</td>
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<tr>
<td>SPAN 05400</td>
<td>History Of The Spanish Language</td>
<td>3 s.h.</td>
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<td><em>Prerequisites: SPAN 05301</em></td>
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<td>This course gives students an overview of the historical evolution of Spanish from its Latin roots to present-day varieties spoken in Spain and Latin America. It provides an introduction to the science of linguistics.</td>
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<td>SPAN 05409</td>
<td>Advanced Spanish Grammar (WI)</td>
<td>3 s.h.</td>
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<td><em>Prerequisites: COMP 01112 and SPAN 05301 and 300 level course in Spanish</em></td>
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<td>This course focuses on the continued improvement of writing Spanish with emphasis on narration and description situated in time. It provides an advanced grammar review and practice in the process of writing and in the expression of nuances and idioms in Spanish.</td>
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<tr>
<td>SPAN 05410</td>
<td>Advanced Spanish Grammar And Composition</td>
<td>3 s.h.</td>
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<td><em>Prerequisites: SPAN 05301</em></td>
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<td></td>
<td>This course helps perfect students’ skills in writing Spanish and in the knowledge of its grammatical structures. It provides exercises in translating modern authors and in composition.</td>
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<tr>
<td>SPAN 05411</td>
<td>Advanced Spanish Conversation</td>
<td>3 s.h.</td>
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<td><em>Prerequisites: SPAN 05301</em></td>
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<td>This course is open to students who wish to improve their spoken Spanish skills. Students will develop enhanced grammatical precision, the ability to produce connected and cohesive discourse and communicative strategies in a variety of conversational situations.</td>
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<tr>
<td>SPAN 05426</td>
<td>Spanish-American Novel</td>
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<td><em>Prerequisites: SPAN 05301</em></td>
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<td>This course deals primarily but not exclusively with contemporary Spanish American novels, analyzing their political, historical, social and cultural importance. Also examined are critical aspects such as voice, narratology, discourse and gender.</td>
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<tr>
<td>SPAN 05435</td>
<td>Spanish Individual Study</td>
<td>3 to 9 s.h.</td>
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<td><em>Prerequisites: SPAN 05301</em></td>
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<td>This course gives students an opportunity to study independently in order to strengthen their background in a particular area of Hispanic studies.</td>
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<tr>
<td>SPAN 05440</td>
<td>Special Topics In Foreign Languages And Literatures</td>
<td>3 s.h.</td>
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<td><em>Prerequisites: SPAN 05301</em></td>
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<td>This course brings new perspectives and themes to the established foreign languages and literatures curriculum. Each semester the instruction of the course rotates among faculty members with select topics according to their current scholarly interests. In this way, the course expands options for upper-level electives.</td>
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<td>SPAN 05481</td>
<td>The Generation Of 1898</td>
<td>3 s.h.</td>
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<td><em>Prerequisites: SPAN 05301</em></td>
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<td>This course studies the origin, development and influence of the so-called &quot;Generation of '98,&quot; its philosophy and outstanding characteristics. Students read and discuss works of some of the major authors.</td>
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<tr>
<td>SPAN 05482</td>
<td>Contemporary Spanish Novel</td>
<td>3 s.h.</td>
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<td><em>Prerequisites: SPAN 05301</em></td>
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<td>This course studies the contemporary novel of twentieth and twenty-first century Spain, examining its most outstanding characteristics. Texts from several important periods, such as Posguerra, Transición and present-day Spain among others will be studied. Areas of emphasis include voice, narratology, discourse and gender.</td>
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<td>SPAN 05490</td>
<td>Study Abroad</td>
<td>1 to 6 s.h.</td>
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<td>The Department encourages students to study abroad. This course is designed to give firsthand knowledge of the social, cultural and historical life of Spain and Spanish American countries. The University offers a study abroad program. For further information contact the director of The International Center or the department chairperson.</td>
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<tr>
<td>SWHL 17101</td>
<td>Elementary Swahili I</td>
<td>3 s.h.</td>
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<td>This beginning course is open to students who have not previously studied Swahili. It covers the mechanics of the language, including intensive practice in listening, comprehension, speaking, reading and writing. Students will also be introduced to East African life and culture.</td>
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</table>
SWHL 17102: Elementary Swahili II 3 s.h.
Prerequisites: SWHL 17101
This beginning course is open to students who have some limited study of Swahili. It offers expanded coverage of the mechanics of the language, including intensive practice in listening, comprehension, speaking, reading and writing. Students will develop additional knowledge of East African life and culture.

ZULU 16101: Elementary Zulu I 3 s.h.
This beginning course is open to students who have not previously studied Zulu. It covers the mechanics of the language, including intensive practice in listening, comprehension, speaking, reading and writing.

ZULU 16102: Elementary Zulu II 3 s.h.
Prerequisites: ZULU 16101
This beginning course is open to students who have had some limited contact with the Zulu language. It offers expanded practice in listening, comprehension, speaking, reading and writing.

ENST 94101: Environmental Studies: Physical Perspectives 3 s.h.
This is a multidisciplinary course that examines the basic principles of biology, chemistry, geology and physics as they relate to environmental studies. Many environmental problems will be discussed. The reasons for these problems, as well as possible solutions will be explored during the course. Environmental concerns in New Jersey will provide the backbone for specific examples. Students will consider the implications and challenges of environmental problems, as well as think in a multidisciplinary way about resolving some of these pressing our endangered earth today.

ENST 94102: Environmental Studies: Social Perspectives 3 s.h.
This introductory course examines the relationship between the physical environment, social policy and human populations from a social science perspective. A human ecology approach will be used to study this relationship and analyze a variety of environmental issues. The first part of the course introduces the anthropology and the philosophy of the human ecological perspective. During the second part of the course, the physical social, psychological and political aspects of environmental issues will be examined.

ENST 94301: Environmental Ethics 3 s.h.
This is a multidisciplinary course that addresses ethical issues and concerns regarding the environment; the relationships between individual, society and the natural environment; the importance of common attitudes and prevailing world-views for understanding and responding to environmental challenges; and the need to for changes in those attitudes and world-views. Students will be encouraged to think about the profound ethical, political, economic, religious, scientific, and technological implications of these environmental challenges.

ENST 94321: Field Methods And Research Design In Environmental Studies 4 s.h.
Prerequisites: ENST 94101 and STAT 02260
This course fosters an environment where students become familiar with the theories and processes involved in implementing field studies. The general approach aspect reflects the practice of applied methods needed to conduct field assignments, administer instruments to conduct preliminary data collection from various populations, analyze data, and report data. A considerable amount of time will be spent on understanding research studies and assimilating data.

ENST 94400: Environmental Impact Assessment 3 s.h.
Prerequisites: Must have completed any 4-credit lab course as well as two other courses housed within the Department of Geography & Environment
This is a three-credit, senior-level course designed to introduce students to a systematic process for predicting and evaluating the significant environmental consequences of a proposed action or undertaking. The range of environmental impact assessments and techniques including infrastructure projects, such as power plants, highways, pipelines, dams, mines, airports, incinerators and landfills will be explored. Assessment processes have also been used to consider the implications of new technologies, plans, and policies that may result in significant social, economic and biophysical effects. Finally, the course focuses on how assessment processes and techniques are designed or should be designed to be effective, efficient and fair.

ENST 94401: Seminar In Environmental Studies I 3 s.h.
Prerequisite: ENST 94121
Students participate in planning a research project, collecting data, and preparing a report suitable for publication. Research topics are selected according to student interests.
**Course Descriptions**

**ENST 94402:** Seminar In Environmental Studies II  
3 s.h.
Students participate in planning a research project, collecting data, and preparing a report suitable for publication. Research topics are selected according to student interests.

**ENST 94403:** Independent Study - Environmental Studies  
1 to 6 s.h.

**GEOG 16100:** Earth, People, And The Environment  
3 s.h.
This course provides a broad survey of the geographic approach to knowledge about the world and the field of geography. The course introduces the natural order of the physical environment, human modification of environments, organization of society, and regional studies. The course places particular emphasis on contemporary environmental problems and the role of geography in helping to understand and address local, regional, and global issues.

**GEOG 16110:** Cultural Geography  
3 s.h.
This course focuses upon the varied and changing cultural environments of the world. Through a synthesis of data from many disciplines (i.e., anthropology, ecology, earth sciences, history, etc.), major cultural differences and areal patterns are identified and analyzed.

**GEOG 16130:** Earth Sciences Laboratory I  
4 s.h.
Intended to develop an understanding of the physical factors of the Earth as human habitat and human adjustments to them, this course emphasizes the analysis of world distributional patterns of landforms, climate, vegetation, soils, and water features, and causes of relationships of these patterns. The integrated laboratory components provide student participation and experiences in observing, measuring, gathering data, analyzing underlying principles in such sub-fields as geomorphology, climatology, pedology, remote sensing, hydrology, geology, and mapping sciences. Students will be exposed to field techniques during one mandatory Saturday field trip. This course fulfills the General Education laboratory science requirement.

**GEOG 16131:** Principles Of Earth Science  
3 s.h.
This course examines the basic concepts of astronomy, meteorology, geology and the principles derived from these concepts.

**GEOG 16133:** Meteorology  
4 s.h.
This course studies the basic principles of meteorology, acquainting students with the physical principles underlying weather phenomena. Students use weather instrumentation in weather observations and analyze weather maps and observe and record daily weather changes.

**GEOG 16140:** World Regional Geography  
3 s.h.
A survey of the entire world that uses the regional approach to geographical analysis, this course provides students with a basic foundation of geographic knowledge and concepts applicable to the contemporary world. It stresses resource distribution, environmental characteristics, population problems, food and water supplies, cultural variations and developmental strategies.

**GEOG 16160:** Intro To Mapping And Geographic Information Sciences  
3 s.h.
This course provides the student with the conceptual tools required for intelligent and critical use interpretation and analysis of maps. In addition, the course furnishes the student with an introduction to and overview of the mapping sciences. Students learn the concepts, methods, and techniques common to the several branches of the mapping sciences and are introduced to cartography, satellite remote sensing, computer-assisted cartography, and geographical information systems. Because of its increasing importance, special emphasis is placed on geographical information systems.

**GEOG 16240:** Us & Canada  
3 s.h.
A regional study of the United States and Canada in terms of the areal distribution of physical features, population patterns and economic activities, this course stresses an analysis of the forces stimulating change within the regional patterns.

**GEOG 16244:** Geography Of New Jersey  
3 s.h.
A systematic and regional approach to the geography of this, the most densely populated state, this course analyzes the physical environment and cultural milieu in terms of their complex interactions. The course highlights problems of resource utilization and environmental concerns.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>GEOG 16250</td>
<td>Selected Topics In Geography And Environment</td>
<td>1 to 3 s.h.</td>
</tr>
<tr>
<td>GEOG 16260</td>
<td>Geographic Information Systems I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>GEOG 16261</td>
<td>Cartography</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>GEOG 16290</td>
<td>History &amp; Methods of Modern Geography</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>GEOG 16301</td>
<td>Economic Geography</td>
<td>3 s.h.</td>
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<tr>
<td>GEOG 16302</td>
<td>Urban Geography</td>
<td>3 s.h.</td>
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<tr>
<td>GEOG 16303</td>
<td>Political Geography</td>
<td>3 s.h.</td>
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<tr>
<td>GEOG 16304</td>
<td>Population Geography</td>
<td>3 s.h.</td>
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<tr>
<td>GEOG 16307</td>
<td>Geography Of Transportation</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>GEOG 16312</td>
<td>CULTURAL LANDSCAPES</td>
<td>3 s.h.</td>
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</tbody>
</table>
GEOG 16330: Geology I
This course introduces students to the study of the Earth’s interior and to the processes shaping the Earth’s surface. It emphasizes both theoretical understanding and practical application through a combination of lecture and laboratory exercises. Students will learn field methods during a mandatory three-day field trip. This course fulfills the General Education laboratory science requirement.

GEOG 16331: Geology Of The National Parks
This travelling geology course introduces students to the geology, and along the way geography, of the western United States using national parks and national monuments as field laboratories. Students will learn the basics of western geology while visiting some of the most spectacular natural regions in the world including Death Valley, the Grand Canyon, Yellowstone, Grand Teton, Crater Lake and Yosemite National Parks.

GEOG 16332: Geomorphology
Prerequisite: GEOG 16330 OR GEOL 14100
A study of the evolution of land forms, this course examines the processes and physical factors which determine the development of the various types of landscape throughout the world by using case studies.

GEOG 16334: The Geoscience Of Natural Disasters
There are thousands of examples in which the forces of nature have suddenly claimed human lives and destroyed manmade constructions on a large scale. This course will introduce the nature, causes, risks, effects, and prediction of natural disasters including earthquakes, volcanic eruptions, landslides, subsidence, global climate change, severe weather, coastal erosion, floods, mass extinctions, and meteorite impacts. It will cover geologic principles and case histories of natural disasters and human responses (societal impact, mitigation strategies, and public policy).

GEOG 16335: Field Studies In Geography
This course provides students with field research skills necessary to geographic research. It emphasizes techniques of field observation and recording, using a combination of lecture-discussion and field practice. This course may not be offered annually.

GEOG 16338: Climatology
A study designed to develop an understanding of the elements and controls associated with various climatic phenomena, this course examines the consequences of climatic variations and interrelationships with other physical and cultural environmental features. It focuses on the physical and applied aspects of climatology. This course may not be offered annually.

GEOG 16340: Geology II
This course emphasizes historical geology, paleontology, structural geology, ocean basins, and applications of remote sensing. Students will be exposed to practical examples in the laboratories and a mandatory three-day field trip.

GEOG 16342: Geography Of Europe
An intensive study of the physical and cultural characteristics of the European continent and the individual countries of which it is comprised, this course examines such topics as regional integration, international problems, changing patterns of economic development, political stability and shifting population patterns. This course may not be offered annually.

GEOG 16343: Geography Of Asia
This course examines the major environmental features of Asia, stressing problems of population pressure and land utilization. The course studies individual culture realms and selected countries intensively. This course may not be offered annually.

GEOG 16344: Geography Of Latin America
This course studies the physical and cultural bases of Latin America’s geographic patterns, giving special emphasis to problems of resource development, population trends, and economic activity. This course may not be offered annually.

GEOG 16345: Geography Of Africa
An analysis of the diverse environmental factors, cultural groupings and national states comprising the African continent, this course emphasizes the problems of resource development and political stability of the newly emerging nations. This course may not be offered annually.
GEOG 16346: Geography Of The C.I.S. (Former Soviet Union) 3 s.h.
This course studies in depth the geography of the former Soviet Union by focusing on regional variations in population distribution, cultural and ethnic inputs and physical environmental constraints. It emphasizes the respective roles of past centralized planning under Communist doctrine, practical experiences and resource distribution as they influenced economic development and, in effect, changed the geography of the area to a major degree in the 20th century. It further examines the consequences of the break-up of the U.S.S.R. on the 15 separate countries. This course may not be offered annually.

GEOG 16347: Geography Of The Middle East 3 s.h.
This course is a survey of the physical environmental factors as they affect the patterns of settlement, land utilization and economic development of the regions and individual countries that comprise the Middle East. This course emphasizes the geographic bases for the current Arab-Israeli dispute. This course may not be offered annually.

GEOG 16350: Quantitative Methods 3 s.h.
This course examines the application of inferential statistical methods to geographic research. It also offers an introduction to techniques designed especially for analysis of spatial patterns and distribution. This course may not be offered annually.

GEOG 16355: Foundation In Geographic Knowledge 3 s.h.
This course will develop a deep and fluent understanding of geography and its evolution in America’s intellectual and educational landscape. It will focus on the themes and essential elements in geography education with the goal of facilitating students’ understanding of geography’s evolutionary history and the relationships between geographic phenomena and other programs and disciplines. Students will learn how to include geographic thinking to solve real-world problems. The course may not be offered every semester.

GEOG 16360: Geographic Information Systems II 3 s.h.
Prerequisite: GEOG 06193 OR GEOG 16160
Geographic Information Systems II begins with a review of GIS concepts and capabilities. The course then moves to a consideration of the inner workings of GIS by exploring a sample of raster and vector mode cartographic data structures, and by examining the workings of computational algorithms used in GIS analysis. Finally, the course treats more advanced analysis techniques. Students learn the workings of GIS through lectures, demonstrations, and computer laboratory sessions. Student evaluation is based on performance on examinations and projects.

GEOG 16361: Geovisualization 3 s.h.
This course explores geovisualization and related GIS and cartographic techniques. Geovisualization communicates geospatial information in ways that allow for data exploration and decision-making processes. Techniques covered include temporal modeling of processes over time and 3D fly-thru of virtual terrain. The techniques are applied to real-world problem solving in fields such as environmental modeling, planning, archeology, crime mapping and natural resource management.

GEOG 16365: Geospatial Modeling 3 s.h.
Prerequisite: GEOG 06193 OR GEOG 06318 OR GEOL 14100
This course introduces advanced techniques in the GIS data manipulation, geostatistics and geospatial modeling. The fundamental theories behind the analytical and modeling techniques are covered in detail. The theoretical knowledge will be enforced by a series of intensive computer exercises using real data sets. It covers descriptive and predictive GIS modeling techniques, including logit modeling (logistic regression), spatial statistics, geo-statistics, environmental diversity indices, Boolean logic, and map algebra.

GEOG 16370: Remote Sensing/ Air Photo Interpretation 3 s.h.
This course introduces students to techniques of spatial analysis using satellite imagery and aerial photography. It intersperses practical exercises in photo interpretation and digital image processing with demonstrations that include a wide range of photographic and non-photographic source material, including infra-red thermal and micro-wave images, digital orthographic photos as well as LANDSAT and other satellite platforms.

GEOG 16371: Remote Sensing II 3 s.h.
This course emphasizes the integration of remotely sensed data into geographic information systems (GIS). It includes applications of advanced remote sensing techniques and data processing for use in regional planning and land resource management. This course may not be offered annually.
GEOG 16375: Remote Sensing Of The Environment
Prerequisite: GEOG 16260
This course emphasizes the integration of remotely sensed data into geographic information systems (GIS). It includes applications of advanced remote sensing techniques and data processing for use in environmental planning and land resource management. This course may not be offered annually.

GEOG 16390: Geography Research Clinic/Studio
This course presents a project-based experience for students working with a faculty mentor. Modeled on the engineering clinic and a traditional planning studio, students apply knowledge gained through their previous coursework to solve a particular research, policy or planning problem. Projects will be solicited from local agencies and businesses and students will work as individuals or within teams to provide viable solutions.

GEOG 16391: Directed Geographic Field Experiences
This course offers an introduction to geographic field research methods, class field trips to places chosen by instructor and students. Students will complete a field research project taken on a topic chosen in consultation with the instructor. This course may not be offered annually.

GEOG 16460: INTRO GEO INFO SYS
3 s.h.

GEOG 16462: Web-Based Gis Mapping
Prerequisite: GEOG 16260 OR GEOG 06360
This course introduces web-based mapping technologies and applications. Students will gain the skills of creating their own map services which can be used to create custom web-based maps. The course will focus on both open-source and commercial software packages to produce mapping and data services. Students will also explore the client-side offerings to produce mapping applications. The course culminates in a final web mapping project.

GEOG 16490: Undergraduate Research Seminar In Geography-Wi(Senior Seminar)
Prerequisites: COMP 01112 and GEOG 16290
Students participate in planning a research project, collecting data and preparing a report suitable for publication including cartographic materials. Research subjects are selected according to student interest. This course is regularly offered and may be available as a hybrid or online format.

GEOG 16491: Independent Study in Geography
1 to 4 s.h.
Students have an opportunity to pursue individual specialized topics under the guidance of a staff member. This course may not be used as a substitute for a course offered by the department.

PLAN 31280: Introduction To Planning & Environmental Design
3 s.h.
This course presents an overview of the field of planning as practiced in today's American Society. Topics include the history and development of planning, the politics of planning, planning analysis and implementation, urban design, and environmental planning. Particular emphasis is placed on the changing trends of planning including green building and sustainable communities.

PLAN 31380: City Planning I
Prerequisite: PLAN 31280
This course presents an overview of the field of planning as practiced in today's American Society. Topics include the history and development of planning, the politics of planning, planning analysis and implementation, urban design, and environmental planning. Particular emphasis is placed on the changing trends of planning including green building and sustainable communities.

PLAN 31383: Metropolitan/Regional Planning
Prerequisite: PLAN 31280
This course studies the philosophy, history, techniques, and problems of metropolitan and regional planning. Although it focuses on large scale-planning in the United States, the course makes some comparative analysis of planning in other countries. It emphasizes geographic techniques in regional analysis, as well as the roles of federal, state, and local agencies in planning. Students learn and use simulation and gaming techniques in the preparation of regional plans. This course may not be offered annually.
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>PLAN 31384</td>
<td>Water Resources Planning</td>
<td>3 s.h.</td>
<td>PLAN 31280</td>
<td>This course explores water management planning and the public decision making process in metropolitan areas. Topics covered include analysis of systems, resources and issues affecting water supply and treatment.</td>
</tr>
<tr>
<td>PLAN 31385</td>
<td>New Jersey Applied Planning Practice</td>
<td>3 s.h.</td>
<td>PLAN 31280</td>
<td>This course will cover planning in New Jersey, its legal basis and how it is practiced. It will cover the specifics of the local planning boards, zoning board of appeals, master planning, planning procedures and processes. Topics such as affordable housing, regional planning coordination, smart growth, and physical design will be addressed.</td>
</tr>
<tr>
<td>PLAN 31386</td>
<td>Land Use And Conservation</td>
<td>3 s.h.</td>
<td>PLAN 31280</td>
<td>This course examines people's changing perceptions of the economic use potential of land focusing on how land is a combination of physical, economic, political and cultural interactions. The course explores the basics of land use law, property rights, land use conflicts and the various avenues for land conservation and open space preservation.</td>
</tr>
<tr>
<td>PLAN 31389</td>
<td>Environmental / Sustainable Planning</td>
<td>3 s.h.</td>
<td>PLAN 31280</td>
<td>Environmental/Sustainable Planning addresses the advances and trends that are occurring related to environmental and sustainability issues within the field of planning from a local to global perspective. The course will explore some of the national trends of environmental and sustainable planning focusing on programs such as the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) programs for fostering green building and smart growth development. The course will also cover some specific New Jersey environmental planning issues such as the Pinelands, open space preservation and smart growth initiatives.</td>
</tr>
<tr>
<td>PLAN 31486</td>
<td>Community Planning &amp; Site Design</td>
<td>3 s.h.</td>
<td>PLAN 31280</td>
<td>Community Planning &amp; Site Design deals with the design, arrangement, appearance and functionality of building sites, neighborhoods, towns and cities, as well as the shaping and uses of safe public space. The course covers the practices of urban design, landscape architecture, housing and the siting of buildings within the environment. Topics include: sustainable design, smart growth, new urbanism, transit oriented development, and neighborhood design. The course is both theoretical as well as applied providing experience in drafting plans in a studio setting.</td>
</tr>
<tr>
<td>ATR 00105</td>
<td>Introduction to Athletic Training</td>
<td>3 s.h.</td>
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<td>This course is designed as an initial experience for students considering a career in athletic training. Students will be introduced to various domains, competencies, and proficiencies related to athletic training. An in-depth look at the field of athletic training and the requirements of the athletic training program will be discussed. An observational field experience is required.</td>
</tr>
<tr>
<td>ATR 00218</td>
<td>Prevention Care Orthopedic Injuries</td>
<td>3 s.h.</td>
<td>(HES 00241 or PHED 35241) or (HES 00242 or PHED 35242) or (BIOL 10210 or BIOL 10212)</td>
<td>An examination of current practices and procedures in the basic pathology, prevention and care of athletic injuries. The laboratory experience exposes students to wound care, padding, and the art and science of athletic injury taping. An observational clinical field experience will be required.</td>
</tr>
<tr>
<td>ATR 00219</td>
<td>Pathology and Evaluation of Orthopedic Injuries I</td>
<td>3 s.h.</td>
<td>(ATR 00218 or PHED 35218)</td>
<td>This course provides an examination of the etiology, epidemiology, pathology, and assessment of injuries and illnesses to the lower extremity. Structural, functional, and surface anatomy will be reviewed. In addition to didactic classroom time, students are also instructed, given time to practice and evaluated on pertinent athletic training psychomotor competencies and clinical proficiencies within a practical laboratory experience. There is an observational field experience associated with this class.</td>
</tr>
<tr>
<td>ATR 00220</td>
<td>Pathology and Evaluation of Orthopedic Injuries II</td>
<td>3 s.h.</td>
<td>(ATR 00219 or PHED 35219)</td>
<td>Corequisite: ATR 00219</td>
</tr>
</tbody>
</table>
ATR 0038: Pathology and Evaluation of Orthopedic Injuries I (Lab)  2 s.h.
Prerequisite(s): (ATR 00218 or PHED 35218) Corequisite(s): ATR 0039

This laboratory course is designed to teach the psychomotor and clinical proficiency skills necessary to perform a competent evaluation of the lower extremity and low back region. It must be taken and successfully completed in conjunction with Pathology and Evaluation of Orthopedic Injuries I before a student may continue matriculating through the Athletic Training Education Program.

ATR 0039: Pathology and Evaluation of Orthopedic Injuries II (Lab)  2 s.h.
Prerequisite(s): (ATR 00219 or PHED 35219) and (ATR 0038 or PHED 3538) Corequisite(s): ATR 00220

This laboratory course is designed to teach the psychomotor and clinical proficiency skills necessary to perform a competent evaluation of the upper extremity, head, cervical and thoracic regions. It must be taken and successfully completed in conjunction with Pathology and Evaluation of Orthopedic Injuries II before a student may continue matriculating through the Athletic Training Education Program.

ATR 0034: Advanced Emergency Care  3 s.h.

This is a sophomore level course designed primarily for athletic training majors and other allied health professionals. Students are trained in CPR for the professional rescuer as well as other advanced emergency skills. An additional observation experience in a local emergency room is required. There also is an optional lifeguarding component available in this class.

ATR 0038: Clinical Techniques in Athletic Training  2 s.h.
Prerequisite(s): (ATR 00220 or PHED 35220) Corequisite(s): ATR 0039

This course, designed for first semester juniors, will review and evaluate psychomotor competencies and clinical proficiencies previously discussed in pre-professional course work. Students meet once per week in the Athletic Training Laboratory to practice and be evaluated on their psychomotor and clinical proficiency skills. Opportunities are also provided to discuss topics pertinent to the student's clinical residency assignment.

ATR 0039: Clinical Techniques in Athletic Training II  2 s.h.
Prerequisite(s): (ATR 0038 or PHED 3538) Corequisite(s): ATR 0039

This course, designed for second semester juniors, will review and evaluate psychomotor competencies and clinical proficiencies previously discussed in Therapeutic Modalities and topics relevant to previous course work. Students meet once per week in the Athletic Training Laboratory to practice and be evaluated on their psychomotor and clinical proficiency skills. Opportunities are also provided to discuss topics pertinent to the student's clinical residency assignment.

ATR 0030: Clinical Techniques in Athletic Training III  2 s.h.
Prerequisite(s): (ATR 0039 or PHED 3539) Corequisite(s): ATR 00360

This course, designed for first semester seniors, will review and evaluate psychomotor competencies and clinical proficiencies previously discussed in Therapeutic Excercises and topics relevant to previous course work. Students meet once per week in the Athletic Training Laboratory to practice and be evaluated on their psychomotor and clinical proficiency skills. Opportunities are also provided to discuss topics pertinent to the student's clinical residency assignment.

ATR 0031: Clinical Techniques in Athletic Training IV  2 s.h.
Prerequisite(s): (ATR 0040 or PHED 3540) Corequisite(s): ATR 00361

This course, designed for second semester seniors, will review and evaluate clinical proficiencies previously discussed in General Medical Conditions and Pharmacology and related topics relevant to previous course work. Students meet once per week in the Athletic Training Laboratory to practice and discuss topics pertinent to their clinical assignment. The clinical assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at approved affiliated sites.

ATR 0034: Applied Biomechanics  3 s.h.
Prerequisite(s): (ATR 00219 or PHED 35219) and (ATR 00220 or PHED 35220)

This course is designed to acquaint students with the fundamental principles involved with biomechanics and human movements. This course will discuss the kinetic and kinematics concepts and how they are applied to balance, posture, locomotion and functional activity.

ATR 0038: Residency in Athletic Training I  3 s.h.
Prerequisite(s): (ATR 00220 or PHED 35220) and acceptance in the Professional Phase of the Athletic Training Education Program Corequisite(s): ATR 0038

This clinical education course, designed for first semester juniors, will review and evaluate, within a clinical assignment, those clinical proficiencies discussed in previous and concurrent course work using a learning-over-time model. The clinical assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at approved affiliated sites. During this course, the student will be formally evaluated by an Approved Clinical Instructor only.
This course must be taken and successfully completed in conjunction with ATR 00338 Clinical Techniques in Athletic Training I before a student may continue to matriculate through the Athletic Training Education Program.

ATR 00359:  Residency in Athletic Training II  
Prerequisite(s): (ATR 00338 or PHED 35338) and (ATR 00358 or PHED 35358)  
Corequisite(s): ATR 00339  
This clinical education course, designed for second semester juniors, will review and evaluate, within a clinical setting, those clinical proficiencies discussed in previous and concurrent course work using a learning-over-time model. The clinical assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at approved affiliated sites. During this course, the student will be formally evaluated by an Approved Clinical Instructor only. This course must be taken and successfully completed in conjunction with ATR 00339 Clinical Techniques in Athletic Training II before a student may continue matriculating through the Athletic Training Education Program.

ATR 00360:  Residency in Athletic Training III  
Prerequisite(s): (ATR 00339 or PHED 35339) and (ATR 00359 or PHED 35359)  
Corequisite(s): ATR 00340  
This clinical education course, designed for first semester seniors, will review and evaluate, within a clinical setting, those clinical proficiencies discussed in previous and concurrent course work using a learning-over-time model. The clinical assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at approved affiliated sites. During this course, the student will be formally evaluated by an Approved Clinical Instructor only. This course must be taken and successfully completed in conjunction with ATR 00340 Clinical Techniques in Athletic Training III before a student may continue matriculating through the Athletic Training Education Program.

ATR 00361:  Residency in Athletic Training IV  
Prerequisite(s): (ATR 00340 or PHED 35340) and (ATR 00360 or PHED 35360)  
Corequisite(s): ATR 00341  
This clinical education course, designed for second semester seniors, will review and evaluate, within a clinical setting, those clinical proficiencies discussed in previous and concurrent course work using a learning-over-time model. The clinical assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at approved affiliated sites. During this course, the student will be formally evaluated by an Approved Clinical Instructor only. This course must be taken and successfully completed in conjunction with ATR 00341 Clinical Techniques in Athletic Training III before a student may continue matriculating through the Athletic Training Education Program.

ATR 00405:  Organization & Administration in Athletic Training  
Prerequisite(s): (ATR 00339 or PHED 35339)  
This lecture/laboratory course is designed to meet the entry level competencies for the athletic training student in the area of organization and administration of athletic training. It covers liability, budgeting, athletic training facility design, insurance, administration of medical record keeping systems, data tabulation and interpretation, emergency transportation systems, athletic training facility management, impact of state and national governing body regulations, athletic injury insurance administration and communication, conflict resolution and mediation. The senior level course is designed to meet educational competencies in pharmacology and general medicine for the undergraduate athletic training student. This course will focus on issues in pharmacology and general medicine pertinent to the allied health profession of athletic training. Issues such as the drug approval process, side effects of medications, general medical evaluation will be explored during this course. There is a general medical clinical field experience with the athletic training programs medical director associated with this course.

ATR 00430:  Senior Seminar in Athletic Training  
Prerequisite(s): (ATR 00340 or PHED 35340)  
This senior seminar is an examination of the individual's responsibility to promote athletic training as a profession, remain abreast of current theory and practice, disseminate health and athletic training information, and to enhance the professional growth of self and others.

ATR 00447:  Therapeutic Modalities in Athletic Training - Laboratory Experiences  
Prerequisite(s): (ATR 00220 or PHED 35220)  
Corequisite(s): ATR 00475  
This laboratory course is designed to teach the psychomotor and clinical proficiency skills necessary to develop psychomotor skills relevant to the use of Therapeutic Modalities. This laboratory course must be taken and successfully completed in conjunction with Therapeutic Modalities in Athletic Training before a student may continue matriculating through the Athletic Training Education Program.
### Course Descriptions

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<th>Course Code</th>
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<th>Credits</th>
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<tr>
<td>ATR 00475</td>
<td>Therapeutic Modalities for Athletic Training</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ATR 00476</td>
<td>Therapeutic Exercises in Athletic Training - Laboratory Experiences</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>ATR 00477</td>
<td>Psychosocial Aspects of Physical Activity</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ATR 00478</td>
<td>Therapeutic Exercises in Athletic Training</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>ATR 00479</td>
<td>Pharmacology and General Medicine in Athletic Training</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HES 00100</td>
<td>Teaching Concepts of Driver Education</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>HES 00109</td>
<td>Adventure and Experiential Learning</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>HES 00116</td>
<td>Safety First Aid Basic Understanding of Athletic Injuries</td>
<td>3 s.h.</td>
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**ATR 00475: Therapeutic Modalities for Athletic Training**
Prerequisite(s): (ATR 00220 or PHED 35220) and (ATR 00329 or PHED 35239)
Corequisite(s): ATR 00447

This course focuses on the cognitive, affective and psychomotor competencies involved in developing appropriate therapeutic modality programs for the injured person. This course uses current research to discuss the theory and clinical applications of all potential modalities used in the athletic training room. This course implements a problem-solving approach for the return of functional integrity to the injured person through the use of therapeutic modalities. A laboratory experience is part of this class.

**ATR 00476: Therapeutic Exercises in Athletic Training - Laboratory Experiences**
Prerequisite(s): (ATR 00475 or PHED 35475) Corequisite(s): ATR 00478

This laboratory course is designed to teach the psychomotor and clinical proficiency skills necessary to develop psychomotor skills relevant to the use of Therapeutic Exercises. This laboratory course must be taken and successfully completed in conjunction with Therapeutic Exercises in Athletic Training before a student may continue matriculating through the athletic training education program.

**ATR 00477: Psychosocial Aspects of Physical Activity**
Prerequisite(s): PSY 01107 and (ATR 00479 or PHED 35479)

This course, designed for seniors in Athletic Training, addresses several CAATE proficiencies related to the psychosocial aspect of physical activity and injury. Topics include but are not limited to theories related to the psychological and emotional aspects of trauma and forced inactivity, the use of motivational activities towards rehabilitation, basic principles of mental preparation, relaxation, and visualization, as well as theories and techniques of interpersonal and cross-cultural communication among athletic trainers, their patients, and others involved in the healthcare of the patient.

**ATR 00478: Therapeutic Exercises in Athletic Training**
Prerequisite(s): (ATR 00475 or PHED 35475) and (ATR 00447 or PHED 35447) Corequisite(s): ATR 00476

This course covers the cognitive, affective and psychomotor competencies involved in developing appropriate rehabilitation exercise protocols for the injured person. This course uses current research to discuss the physiological and biomechanical concepts involved in the clinical practice of rehabilitation. This course implements a holistic and problem-solving approach for the return of functional integrity to the injured person. A laboratory experience is part of this class.

**ATR 00479: Pharmacology and General Medicine in Athletic Training**
Prerequisite(s): (ATR 00478 or PHED 35478)

This senior level course is designed to meet educational competencies in pharmacology and general medication for the undergraduate athletic training student. The course will focus on issues in pharmacology and general medicine pertinent to the allied health profession of athletic training. Issues such as the drug approval process, side effects of medications, general medical evaluation will be explored during this course. There is a general medical clinical field experience with the athletic training program’s medical director associated with this course.

**HES 00100: Teaching Concepts of Driver Education**
Prerequisite(s): (ATR 00235 or PHED 35235) and (HPE 00325 or HLTH 37325) or (ATR 00235 or PHED 35235) and (HPE 00326 or HLTH 37326)

The course is designed for individuals seeking New Jersey Driver Education teacher endorsement. The content includes learning to teach motor vehicle operation, driving environment and the student development of teaching techniques emphasizing safety, risk perception, and decision-making processes applied in a vehicle. Learning how to instruct others in performing behind-the-wheel driving will be scheduled outside of class time.

**HES 00109: Adventure and Experiential Learning**

This course in adventure and experiential learning activities is designed to provide the prospective students with the skills and knowledge necessary to conduct adventure and experiential learning activities in a variety of settings. A function of this course is to introduce strategies appropriate for facilitating experiential and adventure experiences for varied settings and groups. We believe that these types of activities are becoming increasingly relevant in today’s society, especially in occupational wellness. Thus, the skill and knowledge proficiency is a necessary component of leadership in a variety of settings.

**HES 00116: Safety First Aid Basic Understanding of Athletic Injuries**
Prerequisite(s): Acceptance into one of the following programs: Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification.

This course is designed for the individual who is interested in gaining CPR and First Aid certification and a basic understanding of athletic injuries. The first part of this class will allow students to understand and demonstrate appropriate techniques in performing American Red Cross Community CPR and First Aid techniques required for certification. The second component of the class will enable students to understand basic concepts in athletic injury: anatomy, recognition, and basic care.
HES 00200: Basic Nutrition 3 s.h.
Students study human nutrition through the basic knowledge of nutrients and the physiological processes involved in the utilization of food. They also develop an understanding of the ways in which age, health, social, and economic factors and other variables affect nutritional needs and food practices. A computerized dietary analysis may be one of the course requirements.

HES 00241: Structure and Function of the Human Body I 3 s.h.
Prerequisite: Acceptance into one of the following programs; Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification
This course investigates basic anatomical and physiological concepts of the human body. It includes cellular structure and function, metabolism, and the skeletal, nervous, muscular, circulatory and respiratory systems.

HES 00242: Structure and Function of the Human Body II 3 s.h.
Prerequisite(s): (HES 00241 or PHED 35241) and acceptance into one of the following programs; Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification.
This course continues the study of the human body begun in HES 00241. It investigates the urinary, endocrine, reproductive, digestive and integumentary systems.

HES 00271: Movement and Meaning in Sports 3 s.h.
This course helps students understand themselves and how they relate physically to their environment. Through movement students discover, understand, control and adjust to their environment and gain an understanding of space, time and force. The course discusses exercise and sport forms. This course may not be offered annually.

HES 00272: Technology and Assessment of Health and Exercise Science 3 s.h.
Prerequisite: Acceptance into one of the following programs; Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification
This course will prepare students in the Department of Health and Exercise Science to use computers and technology for organizing information, amplifying presentation, developing written documents, assessing client/students, gathering information, and completing research. Students will evaluate software, use peripheral devices, explore internet applications, and use non-computer media applications as they apply to their discipline. An introduction to simple statistical designs will also be a component of this course.

HES 00329: Laboratory in Personal Training Techniques 1 s.h.
Prerequisite(s): (HES 00401 or PHED 35401)
This course prepares the student, with an exercise science background, to work successfully as a personal fitness trainer for individual clients. During this highly experiential learning course, students will develop their ability to combine their exercise science knowledge, counseling and educational skills, and fitness techniques to prescribe exercise for a variety of populations. Upon successfully completing this course, students will be prepared to qualify for national certifications in personal training.

HES 00343: Kinesiology 3 s.h.
Prerequisite(s): (BIOL 10210 and BIOL 10212) or (HES 00241 or PHED 35241 and (HES 00242 or PHED 35242), all with a grade of C- or higher.
Kinesiology, the study of human movement, integrates the sciences of anatomy, physiology and physics as they contribute to developing an appreciation for the art of movement. Opportunity is given for an individual study of a movement pattern with emphasis on the application of the mechanical principles of motion.

HES 00344: Exercise Physiology (without lab) 3 s.h.
Prerequisite(s): (BIOL 10210 and BIOL 10212) or (HES 00241 or PHED 35241) and (HES 00242 or PHED 35242), all with a grade of C- or higher.
A course in applied anatomy and physiology, this course studies the interrelationship of exercise and physiology. This course also covers the functions of the human body under the stress of physical activity.

HES 00345: Exercise Physiology (with lab) 4 s.h.
Prerequisite(s): (HES 00241 or PHED 35241) and (HES 00242 or PHED 35242) or (BIOL 10210 and BIOL 10212), all with a grade of C- or higher.
A course in applied anatomy and physiology, this course studies the interrelationship of exercise and physiology. This course also covers the functions of the human body under the stress of physical activity.
Course Descriptions

HES 00373: Advanced Lifesaving/Cardiopulmonary Resuscitation 3 s.h.
This course is for advanced swimmers who wish to learn the skills and techniques necessary to become qualified lifeguards. This course covers swimming and rescue skills, personal safety skills, lifeguard techniques, cardiopulmonary resuscitation skills and knowledge, and management techniques for aquatic environments. Upon successful completion of the course the student will receive the American National Red Cross Certificate in Basic Cardiopulmonary Resuscitation and in Advanced Lifesaving. This course may not be offered annually.

HES 00374: Coaching Team Sports (Non-Majors) 3 s.h.
This course develops a sound philosophy in team sports for interscholastic programs in junior and senior high schools. This course presents skills, techniques, theory, rules, strategy and methods through laboratory, classroom experiences and audiovisual aids. This course may not be offered annually.

HES 00377: Teaching Health and Physical Education to the Handicapped 3 s.h.
This course is a restrictive elective course for special education majors and an elective for all other students. Students study the need for health and physical education for handicapped students as defined in P.L. 94-142. The course demonstrates several teaching styles that correlate physical education with other disciplines focusing on movement. Learning experiences in the gymnasium are used to reinforce methodology studied in the classroom. This course may not be offered annually.

HES 00378: Recreation and Leisure Studies for the Handicapped 3 s.h.
This course develops an understanding of the values and function of recreation in the lifestyle of handicapped individuals. It explores societal trends, legislation, and barriers which impact on recreation participation. It studies the implementation of leisure education, leisure counseling, recreation as a related service in P.L. 94-142, and the continuum of recreation services in community settings. Open to all students.

HES 00401: Exercise Prescription 3 s.h.
Prerequisite(s): (BIOL 10210 and BIOL 10212) or (HES 00344 or PHED 35344 or HES 00345 or PHED 35345) or (HES 00241 or PHED 35241 and HES 00242 or PHED 35242) and (ATR 00334 or PHED 35344 or HES 00345 or PHED 35345), all with grade C- or higher.
This course provides students with the knowledge and practical experience in exercise testing and prescription. The information enables students to establish scientific foundations of exercise testing and prescription, to identify the risk factors for disease development and to prescribe an exercise program based on exercise test results and personal limitations. Practical experience is provided for testing subjects in the laboratory.

HES 00412: Exercise for Special Populations 3 s.h.
Prerequisite(s): (HES 00345 or PHED 35345) Corequisite(s): HES 00401
This course provides a study of exercise considerations for special populations. It covers the basic concepts of the physiologic effects of exercise and the application of these concepts to special cases. Cases included are respiratory and cardiovascular diseases, hypertension, obesity, diabetes, arthritis, osteoporosis, pregnancy, children/adolescents, and the elderly.

HES 00415: Nutrition for Fitness 3 s.h.
Prerequisite(s): (HES 00200 or INAR 06200) and (BIOL 10210 and BIOL 10212) or (HES 00241 or PHED 35241 and HES 00242 or PHED 35242), all with a grade of C- or higher.
This advanced nutrition course explores the relationship between nutrition, physical fitness, performance and disease prevention. Specific topics include nutrition fraud, supplementation, ergogenic aids, diet planning for athletes and the relationship between nutrition and chronic diseases such as cancer and heart disease. In addition, students continue to develop their skills as nutrition counselors and educators.

HES 00456: Principles of Coaching 3 s.h.
Emphasizes the development of a sound coaching philosophy. Includes aspects related to team organization, supervision, equipment control and its administration and community ethics. Attention will be given to the sociology and psychology of sport.

HES 00473: Water Safety Instructor 3 s.h.
This course covers the American National Red Cross standardized program of skill proficiency, teaching methodologies, principles of class organization, safety factors in teaching swimming and practice teaching experiences. The course is for advanced swimmers who are interested in learning to teach swimming and water safety. Upon successful completion of this course students receive the American National Red Cross Certificate as a Water Safety Instructor. This course may not be offered annually.
### Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>HES 00480</td>
<td>Trends in School and Community Recreation</td>
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<td>This course, an elective course for all students,</td>
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<td>assists students to develop and enhance &quot;a worthy</td>
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<td>use of leisure&quot; by participation in school and</td>
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<td>community recreation as well as leisure service</td>
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<td>programs and activities.</td>
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<td>HES 00492</td>
<td>Independent Study Health &amp; Exercise Science</td>
<td>3 s.h.</td>
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<td>HLT 00103</td>
<td>Health and Wellness</td>
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<td>This course stresses the concepts of lifetime</td>
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<td>health and physical fitness. It examines the</td>
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<td>positive effects of exercise upon the heart and</td>
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<td>blood vessels, obesity and proper diet, body</td>
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<td>mechanics, and how the body handles stress. The</td>
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<td>course also examines the negative effects of</td>
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<td>disease, including socially transmitted diseases,</td>
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<td>substance abuse including narcotics, alcohol and</td>
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<td>tobacco, and other contemporary health-related</td>
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<td>problems. Students learn to analyze their</td>
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<td>strengths and limitations while planning a</td>
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<td>personal wellness profile which best fits their</td>
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<td>needs and interest.</td>
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<td>HLT 00170</td>
<td>Stress Management</td>
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<td>This course focuses on the nature of stress and</td>
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<td>the impact it has on a person's health. The</td>
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<td>physiological, psychological and social factors</td>
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<td>which contribute to one's general stress balance</td>
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<td>and develop life skills to combat the negative</td>
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<td>impact of stress.</td>
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<td>HLT 00180</td>
<td>Psychological Aspects of Health</td>
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<td>The course deals mostly with assisting students</td>
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<td>in meeting mental health problems in today's</td>
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<td>society. It emphasizes modification in behavior,</td>
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<td>effects of chemicals on behavior, the</td>
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<td>psychology of sex, the psychology of accident</td>
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<td>prevention and the psychological problems of</td>
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<td>aging. This course may not be offered annually.</td>
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<tr>
<td>HLT 00192</td>
<td>Contemporary Health I</td>
<td>3 s.h.</td>
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<td>*Prerequisite: Acceptance into one of the</td>
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<td>following programs Athletic Training, Health</td>
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<td>Promotion &amp; Fitness Management, or Health &amp;</td>
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<td>Physical Education Teacher Certification.</td>
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<td>This is the first in a series of two general</td>
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<td>knowledge based survey courses which provide</td>
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<td>students with knowledge of current health issues</td>
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<td>which occur in the human life cycle. Topics</td>
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<td>which will be addressed are family life and</td>
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<td>human sexuality, personal growth and development,</td>
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<td>mental and emotional health, aging and</td>
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<td>death and dying.</td>
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<td>HLT 00193</td>
<td>Contemporary Health II</td>
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<td>This is the second in a series of two general</td>
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<td>knowledge based survey courses which provide</td>
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<td>students with knowledge of current health issues</td>
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<td>which occur in the human lifecycle. Topics</td>
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<td>which will be addressed are alcohol, tobacco</td>
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<td>and other drugs, personal health, chronic</td>
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<td>infectious diseases, environmental health and</td>
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<td></td>
<td>consumerism.</td>
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<td>HLT 00209</td>
<td>Health Education for Elementary School Teachers</td>
<td>1 s.h.</td>
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<td>Elementary education majors will be prepared to</td>
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<td></td>
<td>conduct thorough and effective health education</td>
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<td></td>
<td>in grades K-6. This course focuses on the</td>
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<td>nature and philosophy of health education and</td>
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<td>comprehensive school health programs as well as</td>
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<td>the teacher's role in curriculum, instruction</td>
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<td>and evaluation as they impact student</td>
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<td></td>
<td>health-related behavior.</td>
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<td>HLT 00327</td>
<td>Consumer Health Decisions</td>
<td>3 s.h.</td>
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<td>*Prerequisite(s): (HLT 00192 or HLTH 27192) and</td>
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<td></td>
<td>(HLTH 00193 or HLTH 37193) or (HPE 00325 or</td>
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<td>HLTH 37323) or (HPE 00326 or HLTH 37326)</td>
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<td>This course examines the rights and</td>
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<td>responsibilities of a consumer faced with</td>
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<td>increasing amounts of information related to</td>
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<td>his or her overall well-being. It examines the</td>
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<td>major problem of health fraud and the</td>
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<td>components of scientific research. The</td>
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<td>role of advertising is explored, as well as</td>
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<td>sound principles for purchasing nutrition,</td>
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<td>fitness and other health-related products and</td>
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<td>services. Students learn important concepts</td>
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<td>related to health insurance and hospitals,</td>
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<td>traditional and alternative medical care and</td>
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<td></td>
<td>how to better manage the decisions they make.</td>
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<td>HLT 00390</td>
<td>Health Problems of the Young Child</td>
<td>3 s.h.</td>
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<td>Designed primarily for the early childhood</td>
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<td>and kindergarten-primary education majors, this</td>
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<td>course covers observation, detection,</td>
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<td>prevention and alleviation of physical,</td>
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<td>emotional and social health problems and</td>
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<td>disorders of the 3-8 year old child. This</td>
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<td></td>
<td>course may not be offered annually.</td>
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<tr>
<td>HLT 00420</td>
<td>Contemporary Issues in Nutrition</td>
<td>3 s.h.</td>
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<td>*Prerequisite(s): (HES 00200 or INAR 06200)</td>
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<td>This upper-level nutrition course provides</td>
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<td>students with a forum to critically consider</td>
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<td>controversial issues in nutrition research,</td>
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<td>education and policy. The influence of</td>
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<td>governmental agencies, the food industry, the</td>
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<td>media, and consumer advocacy groups on the</td>
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<td>dietary guidelines provided for Americans is</td>
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<td>examined. Students are challenged to apply their</td>
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<td>nutrition knowledge and education skills as they</td>
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<td>provide a nutrition consultation for a client.</td>
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<td>This course is relevant for students desiring</td>
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<td>to enter the fields of public or community</td>
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<td>health upon graduation.</td>
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<td>Course Code</td>
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<td>HLT 00485:</td>
<td>EVAL PROCEDURES IN HEALTH</td>
<td>3 s.h.</td>
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<td>This course applies knowledge and skill in</td>
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<td>developing measuring techniques for program</td>
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<td>effectiveness, through types of research</td>
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<td>procedures related to health. It includes</td>
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<td>competence in evaluating and interpreting</td>
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<td>health-related statistical data and material</td>
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<td>from various national and international health</td>
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<td>organizations. This course may not be offered</td>
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<td>HLT 00486:</td>
<td>Problems and Issues in Health</td>
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<td>This course assists students in understanding</td>
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<td>current problems and issues in health solutions</td>
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<td>by examining past and possible future</td>
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<td>solutions. It stresses the latest health issues</td>
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<td>such as AIDS, the cocaine problem, and teenage</td>
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<td>pregnancy. This course may not be offered</td>
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<td>HLTH 37170:</td>
<td>Stress Management</td>
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<td>This course focuses on the nature of stress and</td>
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<td>the impact it has on a person's health. The</td>
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<td>HLTH 37180:</td>
<td>Psychological Aspects Of Health</td>
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<td>HLTH 37192:</td>
<td>Contemporary Health I</td>
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<td>HLTH 37193:</td>
<td>Contemporary Health II</td>
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<td>HLTH 37209:</td>
<td>Health Education For Elementary School Teachers</td>
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<td>Elementary education majors will be prepared to</td>
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<td>HLTH 37310:</td>
<td>Foundations Of Health Promotion And Fitness</td>
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<td>Management</td>
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<td>HLTH 37325:</td>
<td>Teaching Concepts Of Health Education I</td>
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<td>HLTH 37326:</td>
<td>Teaching Concepts Of Health Education II</td>
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Education (Standards 2.1 through 2.4). Actual lesson planning and teaching experiences are required. Topics which will be addressed are Family Life and Human Sexuality, Personal Health, Chronic and Infectious Diseases, Environmental Health and Consumerism.

HLTH 37327: Consumer Health Decisions
3 s.h.
This course examines the rights and responsibilities of a consumer faced with increasing amounts of information related to his or her overall well-being. It examines the major problem of health fraud and the components of scientific research. The role of advertising is explored, as well as sound principles for purchasing nutrition, fitness and other health-related products and services. Students learn important concepts related to health insurance and hospitals, traditional and alternative medical care and how to better manage the decisions they make.

HLTH 37329: Laboratory In Personal Training Techniques
1 s.h.
Prerequisites: PHED 35401
This course prepares the student, with an exercise science background, to work successfully as a personal fitness trainer for individual clients. During this highly experiential learning course, students will develop their ability to combine their exercise science knowledge, counseling and educational skills, and fitness techniques to prescribe exercise for a variety of populations. Upon successfully completing this course, students will be prepared to qualify for national certifications in personal training.

HLTH 37340: Administration Of Health Promotion And Fitness Programs
3 s.h.
Prerequisites: HLTH 37170 and HLTH 37192 and HLTH 37310 and HLTH 37350 and INAR 06200
This course identifies and explains the components of a successful health promotion and fitness program. Students learn how to conduct a needs assessment, set goals and objectives, design intervention strategies, promote the program, find resources, prepare a budget and evaluate a program. In addition, students sharpen their professional skills related to public speaking, time management and business writing.

HLTH 37350: Health Behavior
3 s.h.
Prerequisites: HLTH 37310 and successful completion of Praxis I exam.
This course examines the factors that influence an individual's choices and behaviors related to health and the process of motivating change within the individual to adopt healthful behaviors and discontinue unhealthful ones. Several theories of health behavior are examined and applied. The different roles of the client and educator are addressed as the student is prepared to counsel others in making positive health behavior changes.

HLTH 37360: Facility and Program Management in Health Promotion
3 s.h.
Prerequisite(s): HLTH 37310
This course examines the skills necessary to effectively manage a health promotion facility and program through the study of the health and fitness facility management industry. Topics include training and managing staff, marketing programs and services, customer service, financial management, legal concerns, equipment selection and health and safety issues.

HLTH 37390: Health Problems Of The Young Child
3 s.h.
Designed primarily for the early childhood and kindergarten-primary education majors, this course covers observation, detection, prevention and alleviation of physical, emotional and social health problems and disorders of the 3-8 year old child. This course may not be offered annually.

HLTH 37430: Practicum In Health Promotion And Fitness Management
3 s.h.
Prerequisites: HLTH 37340
This is an application-oriented course in which students design and implement a health promotion/fitness program for the Rowan community. While the major emphasis is on the implementation of the program, students continue to meet weekly to discuss and evaluate their progress. Specific topics related to the field, such as legal liability and resume preparation are also addressed. In addition, students complete a formal evaluation of their professional qualities and skills for the health promotion and fitness field.

HLTH 37453: School Health Program Planning
2 s.h.
Prerequisites: HLTH 37325 and HLTH 37326
This course develops an understanding of the competencies essential in planning of health programs in schools. Students are given opportunities for integrating and correlating health in K-12 school settings. Field experiences, planning and teaching experiences are a part of this course.
HLTH 37483: Senior Internship in HPFM
Prerequisite(s): HLTH 37430
Students complete 400 hours of supervised field experience enabling them to gain practical experience in an environment focused on Health Promotion, Exercise Physiology, Community Health or other, related field. Placements are made in agencies selected on the basis of student’s goals, interests, and program specialization. The site will provide experiences that build on the skills, knowledge, and dispositions acquired during coursework and related professional experiences.

HLTH 37486: Evaluation Procedures In Health
This course applies knowledge and skill in developing measuring techniques for program effectiveness, through types of research procedures related to health. It includes competence in evaluating and interpreting health-related statistical data and material from various national and international health organizations. This course may not be offered annually.

HLTH 37486: Problems And Issues In Health
This course assists students in understanding current problems and issues in health solutions by examining past and possible future solutions. It stresses the latest health issues, such as AIDS, the cocaine problem, and teenage pregnancy. This course may not be offered annually.

HPE 00100: Teaching Concepts of Driver Education
Prerequisite(s): (ATR 00235 or PHED 35235) and (HPE 00325 or HLTH 37325) or (ATR 00235 or PHED 35235) and (HPE 00326 or HLTH 37326)
The course is designed for individuals seeking New Jersey Driver Education teacher endorsement. The content includes learning to teach motor vehicle operation, driving environment and the student development of teaching techniques emphasizing safety, risk perception, and decision-making processes applied in a vehicle. Learning how to instruct others in performing behind-the-wheel driving will be scheduled outside of class time.

HPE 00240: Motor Development and Motor Learning
This is an introductory course that includes the study of locomotor and non locomotor movement, manipulative skills, and developmental and environmental factors that affect learning in these motor skill areas. The course will focus on motor behavior changes. Students will also be introduced to motor learning theories and concepts, assessment, and development of motor skills in various settings.

HPE 00252: Foundations of Fitness
This course is designed to provide students with the skills and knowledge to be able to design, implement, and assess a fitness program for K-12 students. Content will focus on health and skill related fitness and include designing fitness programs for individuals with differing needs and abilities.

HPE 00286: Teaching In Learning Communities II: Foundations of Teaching Health and Physical Education
Prerequisite: C- or better in EDUC 01270
Students in this course are introduced to the profession of teaching health and physical education for pupil outcomes which address the New Jersey Core Curriculum Content Standards for Comprehensive Health and Physical Education, with specific emphasis on teaching skills, student behaviors, and the classroom environment. These three elements are discussed, analyzed and practiced through the principles of learning communities. Students explore the roles and responsibilities of teachers through the study of professional literature; class discussions and activities; simulation exercises; and direct interactions with students, teachers and administrators during on-campus and off-campus experiences. School observations are a required component of this course.

HPE 00310: Teaching Concepts of Secondary Physical Education I
Prerequisite: HPE 00286
This course provides an opportunity for students to learn the characteristics of a skilled performance in a variety of activities, including target and net/wall activities. Students will be able to describe and demonstrate the application of appropriate participation in each activity, as well as effective pedagogical techniques that lead to such participation.

HPE 00316: Teaching Concepts of Dance in Physical Education
Prerequisite: Acceptance into one of the following programs: Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification
This course introduces health and exercise science majors specializing in teacher certification to the skills, concepts and knowledge necessary for instructing development and performance sequences in various rhythmic activities (creative rhythms, routines with small hand apparatus, and novelty dances) and dance forms (folk, social, square, contra, and line). The study of selected rhythmic activities and dance forms include: terminology, relative movement patterns, techniques, skill performance, evaluation, basic musical structure, and teaching strategies.
HPE 00320: Teaching Concepts of Secondary Physical Education II

Prerequisite(s): (HPE 00286 or PHED 35286) 3 s.h.

This course provides an opportunity for students to learn the characteristics of a skilled performance in a variety of physical activities, including invasion sports. Students will be able to describe and demonstrate the application of appropriate participation in each activity, as well as effective pedagogical techniques that lead to such participation.

HPE 00325: Teaching Concepts of Health Education I

Prerequisite(s): (HPE 00286 or PHED 35286) 3 s.h.

This is the first in a series of two combined pedagogy and health education content courses which provide students with knowledge along with general scope and understanding of current health issues which occur in the human lifecycle. This course also develops an understanding of the competencies essential for planning school health education programs. Students are given learning opportunities to develop sensitivity for the importance of integrating health education in various settings and to address the New Jersey Core Curriculum Content Standards for Comprehensive Health and Physical Education (Standards 2.1 through 2.4) Actual lesson planning and teaching experiences are required. Topics which will be addressed are Alcohol, Tobacco and Other Drugs, Personal Growth and Development, Mental and Emotional Health, Aging and Death and Dying.

HPE 00326: Teaching Concepts of Health Education II

Prerequisite(s): (HPE 00286 or PHED 35286) 3 s.h.

This is the second in a series of two combined pedagogy and health education content courses which provide students with knowledge along with general scope and understanding of current health issues which occur in the human lifecycle. This course also develops an understanding of the competencies essential for planning school health education programs. Students are given learning opportunities to develop sensitivity for the importance of integrating health education in various settings and to address the New Jersey Core Curriculum Content Standards for Comprehensive Health and Physical Education (Standards 2.1 through 2.4) Actual lesson planning and teaching experiences are required. Topics which will be addressed are Family Life and Human Sexuality, Personal Health, Chronic and Infectious Diseases, Environmental Health and Consumerism.

HPE 00336: Teaching Concepts of Elementary Physical Education

Prerequisite(s): (HPE 00286 or PHED 35286) and HES Department Acceptance 3 s.h.

This course is an introductory survey course designed to help prepare health and exercise science teacher certification majors to teach relevant curriculum at the elementary school level. Students will be exposed to a number of important activities that comprise the focus of elementary school physical education. Methods, techniques and classroom management as they apply to teaching pertinent curriculum will be highlighted.

HPE 00368: Motor Learning and Human Movement

In this course students receive an introduction to major theories and principles concerning motor learning and performance of physical skills. Emphasis is placed on the preparation of instructional designs which enhance skill and knowledge acquisition of the learner.

HPE 00392: Field Experience in Teaching Health and Physical Education

Prerequisite(s): (HPE 00286 or PHED 35286) or (H PE 00450 or HLTH 37450) 1 s.h.

This course introduces students to the nature and operation of elementary and secondary schools. Students learn to organize instructional materials into meaningful daily lessons in both health and physical education. The course emphasizes the development of teaching strategies, classroom management techniques and use of educational media. The field experience involves observation, tutoring, micro-teaching and practice in a variety of other instructional skills. Field assignments are sought that involve the pre-service teacher in a realistic mainstreamed classroom environment.

HPE 00450: K-12 Health and Physical Education Curriculum and Instruction

Prerequisite(s): (HPE 00286 or HLTH 37286 and (HPE 00450 or HLTH 37220) and (HPE 00310 or PHED 35310) and (HPE 00320 or PHED 35320) and (HPE 00330 or PHED 35330) and HES Department Acceptance 3 s.h.

K-12 Physical Education Curriculum and Instruction is a critical junior level course designed to help prepare Health and Exercise Science majors to become successful physical education teachers in schools. Teacher candidates will develop expertise in curriculum construction, planning, instruction and evaluation in elementary, middle and high school. In developing this expertise, candidates will address the New Jersey Core Curriculum Content Standards for Comprehensive Health and Physical Education (Standards 2.1, 2.5 and 2.6).

HPE 00452: Teaching Concepts of Adapted Physical Education

Prerequisite(s): (HES 00270 or PHED 35270) and (HPE 00286 or PHED 35286) and (HPE 00450 or PHED 35310) and (HPE 00320 or PHED 35320) and (HPE 00330 or PHED 35330) and SPED 08130 Corequisite(s): HPE 00392 3 s.h.

This course is designed to provide health and physical education teacher candidates with the knowledge and basic skills required to meet the professional and legal mandates pertaining to general physical education for students with unique needs, between ages 3 to 21. The course will focus on the law, placement decisions, assessment, individualized general physical education programming, service delivery, and transition planning for individuals with disabilities. It stresses...
professionalism in the workplace, awareness of the strengths and limitations of those with disabilities and methods for inclusion.

**HPE 00453: School Health Program Planning**
Prerequisite(s): (HPE 00325 or HLTH 37325) and (HPE 00326 or HLTH 37326)
This course develops an understanding of the competencies essential in planning of health programs in schools. Students are given opportunities for integrating and correlating health in K-12 school settings. Field experiences, planning and teaching experiences are a part of this course.

**HPE 00460: Clinical Practice in Health and Physical Education, Elementary**
Prerequisite(s): (HPE 00392 or PHED 35392) and Praxis II
This course allows teacher candidates to work under the guidance and direction of an experienced elementary health and physical education teacher. Teacher candidates gain experience and develop insight and skill in the teaching of secondary school health and physical education. An application for clinical practice must be submitted and approved through the Office of Field Experiences.

**HPE 00461: Clinical Practice in Health and Physical Education, Secondary**
Prerequisite(s): (HPE 00392 or PHED 35392)
This course allows teacher candidates to work under the guidance and direction of an experienced secondary health and physical education teacher. Teacher candidates gain experience and develop insight and skill in the teaching of secondary school health and physical education. An application for clinical practice must be submitted and approved through the Office of Field Experiences.

**HPE 00465: Clinical Seminar in Health and Physical Education**
Prerequisite(s): (HPE 00460 or PHED 35460) and (HPE 00461 or PHED 35461)
This senior-level capstone course is designed to be taken concurrently with student teaching. The seminar will focus on: understanding the current issues in teaching health and physical education; evaluating the application of effective teaching; and understanding the parameters of professional and ethical behaviors in teaching.

**HPW 00310: Foundations of Health Promotion and Fitness Management**
This course examines the history, purpose and current practice of health promotion and fitness in organizational settings. Concepts of the field as they relate to corporations, hospitals, non-profit community health agencies and commercial providers are discussed. Students meet with professionals in the field and learn how health promotion and fitness are addressed in different organizations. Resources for professionals in the field are reviewed. Characteristics and skills of successful professionals in this field are addressed.

**HPW 00340: Administration of Health Promotion and Fitness Programs**
Prerequisite(s): (HLT 00170 or HLTH 37170) and (NUT 00200 or INAR 06200) and (HLT 00192 or HLTH 37192) and (HPE 00310 or HLTH 37310) and (HPW 00350 or HLTH 37350) and (HPW 00350 or HLTH 37350)
This course identifies and explains the components of a successful health promotion and fitness program. Students learn how to conduct a needs assessment, set goals and objectives, design intervention strategies, promote the program, find resources, prepare a budget and evaluate a program. In addition, students sharpen their professional skills related to public speaking, time management and business writing.

**HPW 00350: Health Behavior**
Prerequisite(s): (HPW 00310 or HLTH 37310) and successful completion of Praxis I exam.
This course examines the factors that influence an individual's choices and behaviors related to health and the process of motivating change within the individual to adopt healthful behaviors and discontinue unhealthful ones. Several theories of health behavior are examined and applied. The different roles of the client and educator are addressed as the student is prepared to counsel others in making positive health behavior changes.

**HPW 00430: Practicum in Health Promotion and Fitness Management**
Prerequisite(s): (HPW 00340 or HLTH 37340)
This is an application-oriented course in which students design and implement a health promotion/fitness program for the Rowan community. While the major emphasis is on the implementation of the program, students continue to meet weekly to discuss and evaluate their progress. Specific topics related to the field, such as legal liability and resume preparation are also addressed. In addition, students complete a formal evaluation of their professional qualities and skills for the health promotion and fitness field.
**Course Descriptions**

**HPW 00483: Senior Internship in HPFM**  
9 s.h.  
*Prerequisite(s): (HPW 00430 or HLTH 37430)*  
Students complete 400 hours of supervised field experience enabling them to gain practical experience in an environment focused on Health Promotion, Exercise Physiology, Community Health or other, related field. Placements are made in agencies selected on the basis of student’s goals, interests, and program specialization. The site will provide experiences that build on the skills, knowledge, and dispositions acquired during coursework and related professional experiences.

**INAR 05302: Contemporary American Family**  
3 s.h.  
This course examines the dynamic interiors of family life, focusing on the interpersonal relationships of family members and current issues related to family life. Students choose course projects related to their professional or personal goals.

**INAR 06200: Basic Nutrition**  
3 s.h.  
Students study human nutrition through the basic knowledge of nutrients and the physiological processes involved in the utilization of food. They also develop an understanding of the ways in which age, health, social, and economic factors and other variables affect nutritional needs and food practices. A computerized dietary analysis may be one of the course requirements.

**INAR 06390: Nutrition Education**  
3 s.h.  
This course provides an overview of nutrition education and explores the various settings in which nutrition education is carried out. It introduces students to learning theory and reviews techniques and resources for teaching nutrition. Students learn to assess the needs of different learner groups and develop, select, and evaluate appropriate nutrition education materials. This course may not be offered annually.

**INAR 06415: Nutrition For Fitness**  
3 s.h.  
*Prerequisites: INAR 06200, and (BIOL 10210 and 10212) or (PHED 35241 and PHED 35242), all with grade of C- or higher.*  
This advanced nutrition course explores the relationship between nutrition, physical fitness, performance and disease prevention. Specific topics include nutrition fraud, supplementation, ergogenic aids, diet planning for athletes and the relationship between nutrition and chronic diseases such as cancer and heart disease. In addition, students continue to develop their skills as nutrition counselors and educators.

**INAR 06420: Contemporary Issues In Nutrition**  
3 s.h.  
*Prerequisite(s): INAR 06200*  
This upper-level nutrition course provides students with a forum to critically consider controversial issues in nutrition research, education and policy. The influence of governmental agencies, the food industry, the media, and consumer advocacy groups on the dietary guidelines provided for Americans is examined. Students are challenged to apply their nutrition knowledge and education skills as they provide a nutrition consultation for a client. This course is relevant for students desiring to enter the fields of public or community health upon graduation.

**NUT 00200: Basic Nutrition**  
3 s.h.  
Students study human nutrition through the basic knowledge of nutrients and the physiological processes involved in the utilization of food. They also develop an understanding of the ways in which age, health, social, and economic factors and other variables affect nutritional needs and food practices. A computerized dietary analysis may be one of the course requirements.

**NUT 00415: Nutrition for Fitness**  
3 s.h.  
*Prerequisite(s): (NUT 00200 or INAR 06200) and (BIOL 10210 and BIOL 10212) or (NUT 00200 or INAR 06200) and (HES 00241 or PHED 35241) and (HES 00242 or PHED 35242), all with a grade of C- or higher.*  
This advanced nutrition course explores the relationship between nutrition, physical fitness, performance and disease prevention. Specific topics include nutrition fraud, supplementation, ergogenic aids, diet planning for athletes and the relationship between nutrition and chronic diseases such as cancer and heart disease. In addition, students continue to develop their skills as nutrition counselors and educators.

**NUT 00420: Contemporary Issues in Nutrition**  
3 s.h.  
*Prerequisite(s): (NUT 00200 or INAR 06200)*  
This upper-level nutrition course provides students with a forum to critically consider controversial issues in nutrition research, education and policy. The influence of governmental agencies, the food industry, the media, and consumer advocacy groups on the dietary guidelines provided for Americans is examined. Students are challenged to apply their nutrition knowledge and education skills as they provide a nutrition consultation for a client. This course is relevant for students desiring to enter the fields of public or community health upon graduation.
Course Descriptions

PHED 35103: Health And Wellness 3 s.h.
This course stresses the concepts of lifetime health and physical fitness. It examines the positive effects of exercise upon the heart and blood vessels, obesity and proper diet, body mechanics, and how the body handles stress. The course also examines the negative effects of disease, including socially transmitted diseases, substance abuse including narcotics, alcohol and tobacco, and other contemporary health-related problems. Students learn to analyze their strengths and limitations while planning a personal wellness profile which best fits their needs and interest.

PHED 35105: Introduction To Athletic Training 3 s.h.
This course is designed as an initial experience for students considering a career in athletic training. Students will be introduced to various domains, competencies, and proficiencies related to athletic training. An in-depth look at the field of athletic training and the requirements of the athletic training program will be discussed. An observational field experience is required.

PHED 35109: Adventure And Experiential Learning 2 s.h.
This course in adventure and experiential learning activities is designed to provide the prospective students with the skills and knowledge necessary to conduct adventure and experiential learning activities in a variety of settings. A function of this course is to introduce strategies appropriate for facilitating experiential and adventure experiences for varied settings and groups. We believe that these types of activities are becoming increasingly relevant in today's society, especially in occupational wellness. Thus, the skill and knowledge proficiency is a necessary component of leadership in a variety of settings.

PHED 35116: Safety, First Aid, And Basic Understanding Of Athletic Injuries 3 s.h.
Prerequisite: Acceptance into one of the following programs: Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification.
This course is designed for the individual who is interested in gaining CPR and First Aid certification and a basic understanding of athletic injuries. The first part of this class will allow students to understand and demonstrate appropriate techniques in performing American Red Cross Community CPR and First Aid techniques required for certification. The second component of the class will enable students to understand basic concepts in athletic injury: anatomy, recognition, and basic care.

PHED 35218: Prevention And Care Of Orthopedic Injuries 3 s.h.
An examination of current practices and procedures in the basic pathology, prevention and care of athletic injuries. The laboratory experience exposes students to wound care, padding, and the art and science of athletic injury taping. An observational clinical field experience will be required.

PHED 35219: Pathology And Evaluation Of Orthopedic Injuries I 3 s.h.
Prerequisites: PHED 35218 Corequisites: PHED 35238
This course provides an examination of the etiology, epidemiology, pathology, and assessment of injuries and illnesses to the lower extremity. Structural, functional, and surface anatomy will be reviewed. In addition to didactic classroom time, students are also instructed, given time to practice and evaluated on pertinent athletic training psychomotor competencies and clinical proficiencies within a practical laboratory experience. There is an observational field experience associated with this class.

PHED 35220: Pathology And Evaluation Of Orthopedic Injuries II 3 s.h.
Prerequisites: PHED 35219 Corequisite: PHED 35239
This course provides an examination of the etiology, epidemiology, pathology and assessment of injuries and illnesses to the upper extremity, head, axial skeleton, chest, and thorax. Structural, functional and surface anatomy will be reviewed. In addition to didactic classroom time, students are also instructed, given time to practice and evaluated on pertinent athletic training psychomotor competencies and clinical proficiencies within a practical laboratory experience. There is an observational field experience associated with this class.

PHED 35238: Pathology And Evaluation Of Orthopedic Injuries I (Lab) 2 s.h.
Prerequisites: PHED 35218 Corequisites: PHED 35219
This laboratory course is designed to teach the psychomotor and clinical proficiency skills necessary to perform a competent evaluation of the lower extremity and low back region. It must be taken and successfully completed in conjunction with Pathology and Evaluation of Orthopedic Injuries I before a student may continue matriculating through the Athletic Training Education Program.
**Course Descriptions**

**PHED 35239:** Pathology And Evaluation Of Orthopedic Injuries II (Lab)  
*Prerequisites: PHED 35219 and PHED 35338 Corequisites: PHED 35220*

This laboratory course is designed to teach the psychomotor and clinical proficiency skills necessary to perform a competent evaluation of the upper extremity, head, cervical and thoracic regions. It must be taken and successfully completed in conjunction with Pathology and Evaluation of Orthopedic Injuries II before a student may continue matriculating through the Athletic Training Education Program.

**PHED 35240:** Motor Development And Motor Learning  
3 s.h.

This is an introductory course that includes the study of locomotor and non locomotor movement, manipulative skills, and developmental and environmental factors that affect learning in these motor skill areas. The course will focus on motor behavior changes. Students will also be introduced to motor learning theories and concepts, assessment, and development of motor skills in various settings.

**PHED 35241:** Structure And Function Of The Human Body I  
*Prerequisite: Acceptance into one of the following programs: Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification*

This course investigates basic anatomical and physiological concepts of the human body. It includes cellular structure and function, metabolism, and the skeletal, nervous, muscular, circulatory and respiratory systems.

**PHED 35242:** Structure And Function Of The Human Body II  
*Prerequisites: PHED 35241 and acceptance into one of the following programs: Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification*

This course continues the study of the human body begun in PHED 35.241. It investigates the urinary, endocrine, reproductive, digestive and integumentary systems.

**PHED 35252:** Foundations Of Fitness  
3 s.h.

This course is designed to provide students with the skills and knowledge to be able to design, implement, and assess a fitness program for K-12 students. Content will focus on health and skill related fitness and include designing fitness programs for individuals with differing needs and abilities.

**PHED 35271:** Movement And Meaning In Sports  
3 s.h.

This course helps students understand themselves and how they relate physically to their environment. Through movement students discover, understand, control and adjust to their environment and gain an understanding of space, time and force. The course discusses exercise and sport forms. This course may not be offered annually.

**PHED 35272:** Technology And Assessment Of Health And Exercise Science  
*Prerequisite: acceptance into one of the following programs: Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification*

This course will prepare students in the Department of Health and Exercise Science to use computers and technology for organizing information, amplifying presentation, developing written documents, assessing client/students, gathering information, and completing research. Students will evaluate software, use peripheral devices, explore internet applications, and use non-computer media applications as they apply to their discipline. An introduction to simple statistical designs will also be a component of this course.

**PHED 35286:** Teaching In Learning Communities II: Foundations Of Teaching Health And Physical Education  
*Prerequisite: C- or better in EDUC 01270*

Students in this course are introduced to the profession of teaching health and physical education for pupil outcomes which address the New Jersey Core Curriculum Content Standards for Comprehensive Health and Physical Education, with specific emphasis on teaching skills, student behaviors, and the classroom environment. These three elements are discussed, analyzed and practiced through the principles of learning communities. Students explore the roles and responsibilities of teachers through the study of professional literature; class discussions and activities; simulation exercises; and direct interactions with students, teachers and administrators during on-campus and off-campus experiences. School observations are a required component of this course.

**PHED 35310:** Teaching Concepts Of Secondary Physical Education I  
*Prerequisites: PHED 35286*

This course provides an opportunity for students to learn the characteristics of a skilled performance in a variety of activities, including target and net/wall activities. Students will be able to describe and demonstrate the application of appropriate participation in each activity, as well as effective pedagogical techniques that lead to such participation.
Course Descriptions

PHED 35316: Teaching Concepts Of Dance In Physical Education 3 s.h.
Prerequisite: Acceptance into one of the following programs: Athletic Training, Health Promotion and Fitness Management, or Health and Physical Education Teacher Certification

This course introduces health and exercise science majors specializing in teacher certification to the skills, concepts and knowledge necessary for instructing development and performance sequences in various rhythmic activities (creative rhythms, routines with small hand apparatus, and novelty dances) and dance forms (folk, social, square, contra, and line). The study of selected rhythmic activities and dance forms include: terminology, relative movement patterns, techniques, skill performance, evaluation, basic musical structure, and teaching strategies.

PHED 35320: Teaching Concepts Of Secondary Physical Education II 3 s.h.
Prerequisites: PHED 35286

This course provides an opportunity for students to learn the characteristics of a skilled performance in a variety of physical activities, including invasion sports. Students will be able to describe and demonstrate the application of appropriate participation in each activity, as well as effective pedagogical techniques that lead to such participation.

PHED 35334: Advanced Emergency Care 3 s.h.
This is a sophomore level course designed primarily for athletic training majors and other allied health professionals. Students are trained in CPR for the professional rescuer as well as other advanced emergency skills. An additional observation experience in a local emergency room is required. There also is an optional lifeguarding component available in this class.

PHED 35336: Teaching Concepts Of Elementary Physical Education 3 s.h.
Prerequisites: PHED 35286 and HES Department Acceptance

This course is an introductory survey course designed to help prepare health and exercise science teacher certification majors to teach relevant curriculum at the elementary school level. Students will be exposed to a number of important activities that comprise the focus of elementary school physical education. Methods, techniques and classroom management as they apply to teaching pertinent curriculum will be highlighted.

PHED 35338: Clinical Techniques In Athletic Training I 2 s.h.
Co-requisite: PHED 35520 Prerequisites: PHED 35220

This course, designed for first semester juniors, will review and evaluate psychomotor competencies and clinical proficiencies previously discussed in pre-professional course work. Students meet once per week in the Athletic Training Laboratory to practice and be evaluated on their psychomotor and clinical proficiency skills. Opportunities are also provided to discuss topics pertinent to the student's clinical residency assignment.

PHED 35339: Clinical Techniques In Athletic Training II 2 s.h.
Co-requisite: PHED 35359 Prerequisites: PHED 35338

This course, designed for second semester juniors, will review and evaluate psychomotor competencies and clinical proficiencies previously discussed in Therapeutic Modalities and topics relevant to previous course work. Students meet once per week in the Athletic Training Laboratory to practice and be evaluated on their psychomotor and clinical proficiency skills. Opportunities are also provided to discuss topics pertinent to the student's clinical residency assignment.

PHED 35340: Clinical Techniques In Athletic Training III 2 s.h.
Co-requisite PHED 35560 Prerequisites: PHED 35339

This course, designed for first semester seniors, will review and evaluate psychomotor competencies and clinical proficiencies previously discussed in Therapeutic Exercises and topics relevant to previous course work. Students meet once per week in the Athletic Training Laboratory to practice and be evaluated on their psychomotor and clinical proficiency skills. Opportunities are also provided to discuss topics pertinent to the student's clinical residency assignment.

PHED 35341: Clinical Techniques In Athletic Training IV 2 s.h.
Co-requisite PHED 35361 Prerequisites: PHED 35340

This course, designed for second semester seniors, will review and evaluate clinical proficiencies previously discussed in General Medical Conditions and Pharmacology and related topics relevant to previous course work. Students meet once per week in the Athletic Training Laboratory to practice and discuss topics pertinent to their clinical assignment. The clinical assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at approved affiliated sites.
PHED 35343: Kinesiology  3 s.h.
Prerequisites: (BIOL 10210 and BIOL 10212) or (PHED 35241 and PHED 35242), all with grade of C- or higher
Kinesiology, the study of human movement, integrates the sciences of anatomy, physiology and physics as they contribute
to developing an appreciation for the art of movement. Opportunity is given for an individual study of a movement pattern
with emphasis on the application of the mechanical principles of motion.

PHED 35344: Exercise Physiology (Without Lab)  3 s.h.
Prerequisites: (BIOL 10210 and BIOL 10212) or (PHED 35241 and PHED 35242), all with grade of C- or higher
A course in applied anatomy and physiology, this course studies the interrelationship of exercise and physiology. This
course also covers the functions of the human body under the stress of physical activity.

PHED 35345: Exercise Physiology (With Lab)  4 s.h.
Prerequisites: (PHED 35241 and PHED 35242) or (BIOL 10210 and BIOL 10212), all with grade of C- or higher
A course in applied anatomy and physiology, this course studies the interrelationship of exercise and physiology. This
course also covers the functions of the human body under the stress of physical activity.

PHED 35347: Applied Biomechanics  3 s.h.
Prerequisites: PHED 35219 and PHED 35220
This course is designed to acquaint students with the fundamental principles involved with biomechanics and human
movements. This course will discuss the kinetic and kinematics concepts and how they are applied to balance, posture,
locomotion and functional activity.

PHED 35348: Residency In Athletic Training  3 s.h.
Prerequisites: PHED 35220 and acceptance in the Professional Phase of the Athletic Training Education Program; Corequisites: PHED 35328
This clinical education course, designed for first semester juniors, will review and evaluate, within a clinical assignment,
those clinical proficiencies discussed in previous and concurrent course work using a learning-over-time model. The clinical
assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic
trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at
approved affiliated sites. During this course, the student will be formally evaluated by an Approved Clinical Instructor only.
This course must be taken and successfully completed in conjunction with PHED 35-338 Clinical Techniques in Athletic
Training I before a student may continue to matriculate through the Athletic Training Education Program.

PHED 35339: Residency In Athletic Training II  3 s.h.
Prerequisites: PHED 35338 and PHED 35358; Corequisites: PHED 35339
This clinical education course, designed for second semester juniors, will review and evaluate, within a clinical setting,
those clinical proficiencies discussed in previous and concurrent course work using a learning-over-time model. The clinical
assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic
trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at
approved affiliated sites. During this course, the student will be formally evaluated by an Approved Clinical Instructor only.
This course must be taken and successfully completed in conjunction with PHED 35-339 Clinical Techniques in Athletic
Training II before a student may continue matriculating through the Athletic Training Education Program.

PHED 35340: Residency In Athletic Training III  3 s.h.
Prerequisites: PHED 35339 and PHED 35359; Corequisites: PHED 35340
This clinical education course, designed for first semester seniors, will review and evaluate, within a clinical setting,
those clinical proficiencies discussed in previous and concurrent course work using a learning-over-time model. The clinical
assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic
trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at
approved affiliated sites. During this course, the student will be formally evaluated by an Approved Clinical Instructor only.
This course must be taken and successfully completed in conjunction with PHED 35-340 Clinical Techniques in Athletic
Training III before a student may continue matriculating through the Athletic Training Education Program.

PHED 35341: Residency In Athletic Training IV  3 s.h.
Prerequisites: PHED 35340 and PHED 35360; Corequisites: PHED 35341
This clinical education course, designed for second semester seniors, will review and evaluate, within a clinical setting,
those clinical proficiencies discussed in previous and concurrent course work using a learning-over-time model. The clinical
assignment enables students to develop and assimilate patient care skills under the direct supervision of a certified athletic
trainer and/or approved clinical instructor within the athletic training room, exposure to intercollegiate athletics and/or at
approved affiliated sites. During this course, the student will be formally evaluated by an Approved Clinical Instructor only.
This course must be taken and successfully completed in conjunction with PHED 35-341 Clinical Techniques in Athletic
Training III before a student may continue matriculating through the Athletic Training Education Program.
PHED 35368: Motor Learning And Human Movement 3 s.h.
In this course students receive an introduction to major theories and principles concerning motor learning and performance of physical skills. Emphasis is placed on the preparation of instructional designs which enhance skill and knowledge acquisition of the learner.

PHED 35373: Advanced Lifesaving/Cardiopulmonary Resuscitation 3 s.h.
This course is for advanced swimmers who wish to learn the skills and techniques necessary to become qualified lifeguards. This course covers swimming and rescue skills, personal safety skills, lifeguard techniques, cardiopulmonary resuscitation skills and knowledge, and management techniques for aquatic environments. Upon successful completion of the course the student will receive the American National Red Cross Certificate in Basic Cardiopulmonary Resuscitation and in Advanced Lifesaving. This course may not be offered annually.

PHED 35374: Coaching Team Sports (Non-Majors) 3 s.h.
This course develops a sound philosophy in team sports for interscholastic programs in junior and senior high schools. This course presents skills, techniques, theory, rules, strategy and methods through laboratory, classroom experiences and audiovisual aids. This course may not be offered annually.

PHED 35377: Teaching Health And Physical Education To The Handicapped 3 s.h.
This course is a restrictive elective course for special education majors and an elective for all other students. Students study the need for health and physical education for handicapped students as defined in P.L. 94-142. The course demonstrates several teaching styles that correlate physical education with other disciplines focusing on movement. Learning experiences in the gymnasium are used to reinforce methodology studied in the classroom. This course may not be offered annually.

PHED 35378: Recreation And Leisure Studies For The Handicapped 3 s.h.
This course develops an understanding of the values and function of recreation in the lifestyle of handicapped individuals. It explores societal trends, legislation, and barriers which impact on recreation participation. It studies the implementation of leisure education, leisure counseling, recreation as a related service in P.L. 94-142, and the continuum of recreation services in community settings. Open to all students.

PHED 35392: Field Experience In Teaching Health And Physical Education 1 s.h.
Prerequisites: PHED 35286 or PHED 35330 or HLTH 37453
This course introduces students to the nature and operation of elementary and secondary schools. Students learn to organize instructional materials into meaningful daily lessons in both health and physical education. The course emphasizes the development of teaching strategies, classroom management techniques and use of educational media. The field experience involves observation, tutoring, micro-teaching and practice in a variety of other instructional skills. Field assignments are sought that involve the pre-service teacher in a realistic mainstreamed classroom environment.

PHED 35401: Exercise Prescription 3 s.h.
Prerequisites: (BIOL 10210 and BIOL 10212) or (PHED 35241 and PHED 35242) and (PHED 35344 or PHED 35345), all with grade of C- or higher.
This course provides students with the knowledge and practical experience in exercise testing and prescription. The information enables students to establish scientific foundations of exercise testing and prescription, to identify the risk factors for disease development and to prescribe an exercise program based on exercise test results and personal limitations. Practical experience is provided for testing subjects in the laboratory.

PHED 35405: Organization & Administration In Athletic Training 3 s.h.
Prerequisites: PHED 35339
This lecture/laboratory course is designed to meet the entry level competencies for the athletic training student in the area of organization and administration of athletic training. It covers liability, budgeting, athletic training facility design, insurance, administration of medical record keeping systems, data tabulation and interpretation, emergency transportation systems, athletic training facility management, impact of state and national governing body regulations, athletic injury insurance administration and communication, conflict resolution and mediation.
The senior level course is designed to meet educational competencies in pharmacology and general medicine for the undergraduate athletic training student. This course will focus on issues in pharmacology and general medicine pertinent to the allied health profession of athletic training. Issues such as the drug approval process, side effects of medications, general medical evaluation will be explored during this course. There is a general medical clinical field experience with the athletic training programs medical director associated with this course.
PHED 35412: Exercise For Special Populations 3 s.h.
Prerequisite: PHED 35345 Corequisite: PHED 35401
This course provides a study of exercise considerations for special populations. It covers the basic concepts of the physiologic effects of exercise and the application of these concepts to special cases. Cases included are respiratory and cardiovascular diseases, hypertension, obesity, diabetes, arthritis, osteoporosis, pregnancy, children/adolescents, and the elderly.

PHED 35420: Senior Seminar In Athletic Training 2 s.h.
Prerequisites: PHED 35340
This senior seminar is an examination of the individual's responsibility to promote athletic training as a profession, remain abreast of current theory and practice, disseminate health and athletic training information, and to enhance the professional growth of self and others.

PHED 35447: Therapeutic Modalities In Athletic Training - Laboratory Experiences 2 s.h.
Prerequisite: PHED 35320 Corequisite: PHED 35475
This laboratory course is designed to teach the psychomotor and clinical proficiency skills necessary to develop psychomotor skills relevant to the use of Therapeutic Modalities. This laboratory course must be taken and successfully completed in conjunction with Therapeutic Modalities in Athletic Training before a student may continue matriculating through the Athletic Training Education Program.

PHED 35450: K-12 Health And Physical Education Curriculum And Instruction 3 s.h.
Prerequisite: HLTH 37325 and HLTH 37326 and PHED 35310 and PHED 35320 and PHED 35336. Corequisite: PHED 35392
K-12 Physical Education Curriculum and Instruction is a critical junior level course designed to help prepare Health and Exercise Science majors to become successful physical education teachers in schools. Teacher candidates will develop expertise in curriculum construction, planning, instruction and evaluation in elementary, middle and high school. In developing this expertise, candidates will address the NJ Core Curriculum Content Standards for Comprehensive Health and Physical Education (Standards 2.1, 2.5 and 2.6).

PHED 35452: Teaching Concepts Of Adapted Physical Education 3 s.h.
Prerequisites: PHED 35270 and PHED 35286 and PHED 35310 and PHED 35320 and PHED 35336 and SPED 08130. Corequisite: PHED 35392
This course is designed to provide health and physical education teacher candidates with the knowledge and basic skills required to meet the professional and legal mandates pertaining to general physical education for students with unique needs, between ages 3 to 21. The course will focus on the law, placement decisions, assessment, individualized general physical education programming, service delivery, and transition planning for individuals with disabilities. It stresses professionalism in the workplace, awareness of the strengths and limitations of those with disabilities and methods for inclusion.

PHED 35456: Principles Of Coaching 3 s.h.
Emphasizes the development of a sound coaching philosophy. Includes aspects related to team organization, supervision, equipment control and its administration and community ethics. Attention will be given to the sociology and psychology of sport.

PHED 35460: Clinical Practice In Health And Physical Education, Elementary 5 s.h.
Prerequisites: PHED 35392, Praxis II
This course allows teacher candidates to work under the guidance and direction of an experienced elementary health and physical education teacher. Teacher candidates gain experience and develop insight and skill in the teaching of secondary school health and physical education. An application for clinical practice must be submitted and approved through the Office of Field Experiences.

PHED 35461: Clinical Practice In Health And Physical Education, Secondary 5 s.h.
Prerequisites: PHED 35392
This course allows teacher candidates to work under the guidance and direction of an experienced secondary health and physical education teacher. Teacher candidates gain experience and develop insight and skill in the teaching of secondary school health and physical education. An application for clinical practice must be submitted and approved through the Office of Field Experiences.

PHED 35465: Clinical Seminar In Health And Physical Education 2 s.h.
Prerequisites: PHED 35460 or PHED 35461
This senior-level capstone course is designed to be taken concurrently with student teaching. The seminar will focus on: understanding the current issues in teaching health and physical education; evaluating the application of effective teaching; and understanding the parameters of professional and ethical behaviors in teaching.
PHED 35473: Water Safety Instructor  
3 s.h.  
This course covers the American National Red Cross standardized program of skill proficiency, teaching methodologies, principles of class organization, safety factors in teaching swimming and practice teaching experiences. The course is for advanced swimmers who are interested in learning to teach swimming and water safety. Upon successful completion of this course students receive the American National Red Cross Certificate as a Water Safety Instructor. This course may not be offered annually.

PHED 35475: Therapeutic Modalities For Athletic Training  
Prerequisites: PHED 35220 and PHED 35339 Corequisite: PHED 35447  
3 s.h.  
This course focuses on the cognitive, affective and psychomotor competencies involved in developing appropriate therapeutic modality programs for the injured person. This course uses current research to discuss the theory and clinical applications of all potential modalities used in the athletic training room. This course implements a problem-solving approach for the return of functional integrity to the injured person through the use of therapeutic modalities. A laboratory experience is part of this class.

PHED 35476: Therapeutic Exercises In Athletic Training - Laboratory Experiences  
Corequisites: PHED 35478; Prerequisites: PHED 35447  
2 s.h.  
This laboratory course is designed to teach the psychomotor and clinical proficiency skills necessary to develop psychomotor skills relevant to the use of Therapeutic Exercises in Athletic Training. This laboratory course must be taken and successfully completed in conjunction with Therapeutic Exercises in Athletic Training before a student may continue matriculating through the Athletic Training Education Program.

PHED 35477: Psychosocial Aspects Of Physical Activity  
Prerequisites: PSTY 0110; PHED 35479  
3 s.h.  
This course, designed for seniors in Athletic Training, addresses several CAATE proficiencies related to the psychosocial aspect of physical activity and injury. Topics include but are not limited to theories related to the psychological and emotional aspects of trauma and forced inactivity, the use of motivational activities towards rehabilitation, basic principles of mental preparation, relaxation, and visualization, as well as theories and techniques of interpersonal and cross-cultural communication among athletic trainers, their patients, and others involved in the health care of the patient.

PHED 35478: Therapeutic Exercises In Athletic Training  
Corequisites: PHED 35476; Prerequisites: PHED 35445 and PHED 35447  
3 s.h.  
This course covers the cognitive, affective and psychomotor competencies involved in developing appropriate rehabilitation exercise protocols for the injured person. This course uses current research to discuss the physiological and biomechanical concepts involved in the clinical practice of rehabilitation. This course implements a holistic and problem-solving approach for the return of functional integrity to the injured person. A laboratory experience is part of this class.

PHED 35479: Pharmacology And General Medicine In Athletic Training  
Prerequisite: PHED 35478  
3 s.h.  
This senior level course is designed to meet educational competencies in pharmacology and general medication for the undergraduate athletic training student. The course will focus on issues in pharmacology and general medicine pertinent to the allied health profession of athletic training. Issues such as the drug approval process, side effects of medications, general medical evaluation will be explored during this course. There is a general medical clinical field experience with the athletic training program's medical director associated with this course.

PHED 35480: Trends In School And Community Recreation  
3 s.h.  
This course, an elective course for all students, assists students to develop and enhance "a worthy use of leisure" by participation in school and community recreation as well as leisure service programs and activities.

PHED 36100: Teaching Concepts Of Driver Education  
3 s.h.  
The course is designed for individuals seeking New Jersey Driver Education teacher endorsement. The content includes learning to teach motor vehicle operation, driving environment and the student development of teaching techniques emphasizing safety, risk perception, and decision-making processes applied in a vehicle. Learning how to instruct others in performing behind-the-wheel driving will be scheduled outside of class time.

HIST 05100: Western Civilization To 1660  
3 s.h.  
This course covers the evolution of Western Culture from the Stone Age to the end of the Thirty Years War, emphasizing the medieval and early modern periods. Students study the ancient period to learn of its contribution to western culture. The course introduces students to the principles and methodology of history.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>HIST 05101</td>
<td>Western Civilization Since 1660</td>
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<td>Prerequisites: Admitted to the Bantivoglio Honors Concentrate</td>
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<td>This course examines the expansion of European culture to other world areas and the consequent changes for European life. It emphasizes the impact of the Industrial Revolution on all aspects of Western culture and introduces students to the principles and methodology of history.</td>
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<td>HIST 05120</td>
<td>World History Since 1500</td>
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<td>This course examines the historical roots of the American democratic traditions, with the emphasis on understanding the political, social and cultural forces developed in the new physical setting of North America and finally welded into a unified nation.</td>
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<td>HIST 05150</td>
<td>United States To 1865</td>
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<td>This course analyzes the principal political, social and cultural factors conditioning the life of the nation since the Civil War. It emphasizes the issues facing modern America by the impact of industrialization and the problems of world leadership.</td>
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<tr>
<td>HIST 05151</td>
<td>United States Since 1865</td>
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<td>Prerequisites:</td>
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<td>This course examines the key changes in the patterns of interaction among the major cultures of the earth from the beginnings of European Expansion in the 1500's. The course covers the roots of European Expansion, the response of the Confucian, modern, and non-Eurasian cultures, and the emergence of a non-Western Third World Block since 1914.</td>
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<tr>
<td>HIST 05306</td>
<td>Historical Methods-Wi</td>
<td>3 s.h.</td>
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<td>Prerequisites: COMP 01112</td>
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<td>This course offers intensive training in the techniques of historical research and analysis of historical writing. Required of History majors as prerequisite for other upper-level courses.</td>
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<tr>
<td>HIST 05307</td>
<td>Ancient Mediterranean World</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306 and HIST 05100</td>
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<td></td>
<td>This course begins with the earliest Near Eastern civilization and ends with the collapse of Rome. It deals with the wide diversities within this span through selected topics, using readings from primary sources and secondary interpretations. This course may not be offered annually.</td>
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<tr>
<td>HIST 05308</td>
<td>Modern Middle East</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306</td>
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<td>This course provides an introduction to the history of the Middle East from 1800 to the present, a period of intense change in the region. It examines the transition from empires to nation states and the rise and fall of European imperialism in the area. This course is typically offered in the spring semester. This course may not be offered annually.</td>
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<tr>
<td>HIST 05310</td>
<td>Medieval Europe</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05100 and HIST 05306</td>
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<td>This course examines the development of Europe from the particularism of the feudal age to the formation of national states. It covers political evolution, integrating it with the social, economic and cultural trends giving particular stress to the reading of primary sources in translation. This course may not be offered annually.</td>
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<tr>
<td>HIST 05311</td>
<td>Renaissance And Reformation</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05100 and HIST 05306</td>
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<td>This course examines the Renaissance in Italy and northern Europe, the Protestant and Catholic Reformations and their impact upon the politics and culture of the period, the growth of a capitalistic society, overseas expansion and the beginnings of modern science. It uses reading of primary sources. This course may not be offered annually.</td>
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<tr>
<td>HIST 05312</td>
<td>Age Of Enlightenment 1648-1789</td>
<td>3 s.h.</td>
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<td></td>
<td>Prerequisites: (HIST 05101 or HIST 05120) and HIST 05306</td>
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<td></td>
<td>This course studies Europe from the end of the Thirty Years War to the French Revolution including the significant intellectual development known as the Enlightenment, the development of the national monarchies, colonization and the colonial wars. This course may not be offered annually.</td>
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<tr>
<td>HIST 05313</td>
<td>Age Of Revolution 1760-1815</td>
<td>3 s.h.</td>
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<td>Prerequisites: (HIST 05101 or HIST 05120) and HIST 05306</td>
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<td>This course emphasizes the dramatic changes that occurred in European society during this period. It examines the political, social, economic and intellectual factors that stimulated change, using readings in primary sources and secondary interpretations. This course may not be offered annually.</td>
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</table>
HIST 05314: Europe 1871-1914  3 s.h.
Prerequisites: (HIST 05101 or HIST 05120) and HIST 05306
This course examines the period in terms of its dual character as the climax of Enlightenment and as the source of later disillusionment. The course emphasizes Europe and not any particular country, giving particular attention to the historiographical problem of the causes of World War I. This course may not be offered annually.

HIST 05315: Twentieth Century Europe I  3 s.h.
Prerequisites: (HIST 05101 or HIST 05120) and HIST 05306
This course analyzes the major factors that have produced the unrest and disturbances of the present century. It stresses the important economic, social and intellectual trends and major political events. This course may not be offered annually.

HIST 05316: Twentieth Century Europe II  3 s.h.
Prerequisites: (HIST 05101 or HIST 05120) and HIST 05306
A continuation of in-depth analysis of the modern European historical experience, including the impact of world wars and social change. This course may not be offered annually.

HIST 05319: Ancient Greece  3 s.h.
Prerequisites: HIST 05100 and HIST 05306
This course will cover the history of ancient Greece from its prehistoric beginnings, through the flourishing and collapse of Helladic culture at the end of the Bronze Age, to the formation of the "Classical World" following the Dark Ages. Particular attention will be given to the role and importance of Homer in shaping Greek history and ideals; the rise of the city-state during the Archaic Period; the peculiarities of Sparta and Athens, and their rivalry and clash from the Persian to the Peloponnesian Wars. Emphasis shall be placed upon contemporary perceptions of, and reactions to these events as found in primary sources (in translation), and their utility for recovering and reconstructing Hellenic history.

HIST 05321: U.S. History 1820-1861  3 s.h.
Prerequisites: HIST 05150 and (HIST 05306 or AMST 13201)
This course analyzes American society and culture from 1820 to 1861 against the background of industrialization, urban development, westward movement, political campaigns, religious revivals, and evolving gender roles, race relations, and social classes. The course will also focus on the growth of the American Empire, the impact of Jacksonian democracy, and the emergence of sectional politics. This course may not be offered annually.

HIST 05322: Civil War And Reconstruction  3 s.h.
Prerequisites: HIST 05150 and (HIST 05306 or AMST 13201)
This course provides a detailed political, economic and cultural analysis of the causes of the Civil War. It makes a searching study of the years of reconstruction and their significance for our own times, giving particular emphasis to interpreting the era and its overall significance. This course may not be offered annually.

HIST 05324: Twentieth Century U.S.  3 s.h.
Prerequisites: HIST 05151 and (HIST 05306 or AMST 13201)
From the Progressives of the early twentieth century to the present, this course attempts to probe the trends and ideas which form the basis of our present points of view in attempting to solve contemporary problems. This course may not be offered annually.

HIST 05327: Victorian England  3 s.h.
Prerequisites: HIST 05306 and (HIST 05101 or HIST 05120)
This course examines the social and economic history of England from the Reform Act of 1832 to the constitutional crises of 1910, giving special attention to those social and economic factors that underlie British Imperialism. This course may not be offered annually.

HIST 05328: Colonial North America 1500-1775  3 s.h.
Prerequisites: HIST 05150 and (HIST 05306 or AMST 13201)
This course will examine in-depth the political, economic, social and cultural forces that shaped North America from the time of Columbus’ first voyage to the onset of the American Revolution. This will include the study of the variety of European settlements, the impact of European conquest and colonization on native populations, and the threefold relationship between Native Americans, Europeans and Africans that the colonial experience initiated in North America. This course may not be offered annually.
Course Descriptions

HIST 05329: The Gilded Age And Progressive Era, 1877-1914 3 s.h.
Prerequisites: (HIST 05306 or AMST 13201) and HIST 05151
During the Gilded Age and Progressive Era, the United States made a critical transition from a nation that was largely agrarian, rural, and relatively ethnically homogenous to one that was industrial, urban, and ethnically diverse. Students will apply a variety of historical methods to examine the United States’s late nineteenth and early twentieth century transformation into a modern society characterized by dynamic politics and fluid cultural forms. This course may not be offered annually.

HIST 05334: Us Urban History 3 s.h.
Prerequisites: HIST 05306 or AMST 13201
This course surveys the development of urban America from the 17th century in the U.S. with emphasis on architecture and city planning as well as the traditional attitudes of Americans toward the city and the country. This course may not be offered annually.

HIST 05338: America From War To War, 1914-1945 3 s.h.
Prerequisites: HIST 05306 or AMST 13201
This course will focus on federal government’s role in the economy and in social life and the restructuring of the American racial, gender, and ethnic systems. A central focus of the course is the development of a mass production economy and the attendant rise of consumerism and media influence that characterized the era between the wars. This course may not be offered annually.

HIST 05339: The American Revolution And Early Republic, 1775-1828 3 s.h.
Prerequisites: (HIST 05306 or AMST 13201) and HIST 05150
This course will examine the political, economic, social, and cultural factors that led to the onset of the American Revolution, the outbreak of the Revolutionary War, and the creation of the United States of America. This will include study of the adoption of the Constitution, popular challenges to federal power, and the character of American society and politics during the Early Republic. This course may not be offered annually.

HIST 05343: Russia To 1914 3 s.h.
Prerequisites: HIST 05306
This course examines the political, economic, social, and cultural factors that led to the onset of the American Revolution, the outbreak of the Revolutionary War, and the creation of the United States of America. This will include study of the adoption of the Constitution, popular challenges to federal power, and the character of American society and politics during the Early Republic. This course may not be offered annually.

HIST 05344: Russia Since 1914 3 s.h.
Prerequisites: HIST 05306
This course emphasizes the revolutionary forces which led to the explosions of 1905 and 1917. The course carefully studies the nature and dynamics of the Communist Party and the Soviet government. It involves readings from primary sources and secondary interpretation. This course may not be offered annually.

HIST 05347: Traditional Latin America 3 s.h.
Prerequisites: HIST 05306
This course examines racial and cultural diversity of the region, establishment of Iberian institutions and challenges from other empires, the Enlightenment in Hispanic America and the beginnings of independence movements. This course may not be offered annually.

HIST 05350: Modern Latin America 3 s.h.
Prerequisites: HIST 05306
This course examines the history of Latin America from 1825 to the present, including early revolutionary movements, cultural, economic, political and social development with special emphasis on the Organization of American States and United States-Latin American relations.

HIST 05351: Modern Japan 3 s.h.
Prerequisites: HIST 05306
This course offers the analysis of the developments of island East Asia (Japan) from the time of the Tokugawa Shogunate’s contribution to the development of modern Japan and Japanese involvement in modern Western expansionism to the emergence of Japanese expansionism and contemporary Japan, including the various aspects which affect historical development. This course may not be offered annually.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>HIST 05355</td>
<td>Modern China</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306</td>
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<tr>
<td>This course analyzes the development of mainland and island East Asia (China and Japan) from the early involvement with the rising Western expansionism to the present. This course may not be offered annually.</td>
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<tr>
<td>HIST 05356</td>
<td>Late Imperial China</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306</td>
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<td>This is an upper-level course on the history of late imperial China, or the rise and fall of the Ming and Qing dynasties from the mid 14th to the early 20th centuries. During this period, China saw an impressive rise of commercial and urban culture, which impacted the relationship among ethnic groups and between gender in family and society. The Ming-Qing dynastic transition also generated lasting changes that shaped the course of development in modern Chinese history. In addition, the course discusses such epoch-making events as the reconstruction of the Great Wall, Zheng He’s maritime expeditions and the rise of ”evidential learning” as an intellectual movement.</td>
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<tr>
<td>HIST 05362</td>
<td>History Of Mexico And The Caribbean</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306</td>
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<td>This course focuses on the development of Mexico and her Central American and Caribbean island neighbors. Although the course deals mainly with events from the time of independence to the present, it also discusses key eras in the pre-Columbian and colonial periods. This course may not be offered annually.</td>
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<tr>
<td>HIST 05371</td>
<td>Us Legal And Constitutional History To 1870</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306 or AMST 31021</td>
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<td>In this course, students will learn how American law and the Constitution developed from its English roots. This English Common law heritage of American law means that historical development is a part of contemporary law, as justices interpret a Constitution written over 200 years ago. As a part of gaining a strong foundation in American law and government, the course will pause and spend significant time exploring the Constitutional era, in order to be able to evaluate competing ideas today like &quot;original intent&quot; and the &quot;evolving Constitution.&quot; The course will continue through the Reconstruction Amendments to gain perspective on how American law and the Constitution survived and changed during its first chapter.</td>
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<tr>
<td>HIST 05372</td>
<td>Us Legal And Constitutional History Since 1870</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: HIST 05306 or AMST 31021</td>
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<tr>
<td>In this course, students will learn how American law and the Constitution developed in the late 19th and early 20th century beginning with the transformative Reconstruction movements. The course is structured thematically, looking at criminal law, professionalization of the law, the expansion of the federal government, and the rise of civil rights, in order to understand the current legal culture.</td>
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<tr>
<td>HIST 05373</td>
<td>Civil Rights/Black Power Movements</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306</td>
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<td>This course offers a profound re-examination of the Civil Rights-Black Power movements since the 1970s. Special attention is given to ongoing debates over the origins, development, regional boundaries, leadership, protest strategies, and effects of the movement. We will cover a variety of themes ranging from post-WWII racial politics, gender, interracial alliances, grassroots activism, transnational movements, and the Cold War to the constructed images of Martin Luther King, Jr.</td>
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<tr>
<td>HIST 05375</td>
<td>America Since 1945: The Modern Era</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: HIST 05151 and (HIST 05306 or AMST 31021)</td>
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<tr>
<td>This course is designed to provide students with an in-depth study of the social, economic, cultural, technological and political forces that shaped modern America since 1945.</td>
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<td>HIST 05376</td>
<td>Afro-American History To 1865</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306 or AMST 05376or (AFST 01104 and COMP 01112)</td>
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<td>This course surveys the major social, economic and cultural developments of the black community from Africa to the Civil War. It emphasizes a comparison of the transition from Africa to slave culture and studies the contribution of blacks to the making of America.</td>
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<tr>
<td>HIST 05377</td>
<td>Afro-American History Since 1865</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: HIST 05306 or AMST 12201or (AFST 01104 and COMP 01112)</td>
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<td>This course studies the development of the black community from emancipation to contemporary America, tracing such major themes as the pattern of migration and the various methods of black protest developed and employed in the 20th century.</td>
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Course Descriptions

HIST 05379: Ancient Egypt  
Prerequisites: HIST 05100 and HIST 05306
This course will study the culture and history of ancient Egypt from its predynastic beginnings to its formation as the first nation state (c. 3000 BCE) through its apex as an imperial power in the New Kingdom and decline (1050 BCE). Special attention will be paid to the African and Near Eastern origins of ancient Egyptian society; the institution of kingship; the place of ancient Egypt in the development of ethics and religion; and the complexities of imperialism. Emphasis will be placed upon Egyptologists’ use of primary sources and their role in the recovery and reconstruction of ancient Egyptian history.

HIST 05380: Traditional Jewish History  
Prerequisites: HIST 05306
This course traces the origin, faith, law and development of the Jewish people to the 16th century, with emphasis on traditional Jewish culture and values; Jewish literature, the phenomenon of anti-Semitism and the Jewish contribution to Western civilization. This course may not be offered annually.

HIST 05381: Modern Jewish History  
Prerequisites: HIST 05306
This course examines the development of Jewry in Poland, Germany and the U.S. with special emphasis on modern Jewish thought, Zionism, the Nazi holocaust, the rise of Israel and the situation of Judaism and Jews at the present time. This course may not be offered annually.

HIST 05383: Islamic Civilization  
Prerequisites: HIST 05306
This course provides an introduction to Islam and Islamic history, concentrating on the Middle East and North Africa, from the emergence of Islam in the 7th century A.D. through the establishment of the Safavid Dynasty in the 16th century. The course is designed to familiarize students with basic themes and debates related to Islamic history, religion, cultures, and societies using a variety of primary sources as well as secondary interpretations.

HIST 05394: Sub-Saharan Africa To 1800  
Prerequisites: HIST 05306
This course surveys the regions and cultures of sub-Saharan Africa from the earliest origins to the beginning of European colonialism to provide an appreciation of the variety and significance of historical developments prior to the coming of the Europeans. This course may not be offered annually.

HIST 05397: Sub-Saharan Africa Since 1800  
Prerequisites: HIST 05306
Students survey the development of sub-Saharan Africa during the colonial period and the new national period which followed, making an analysis of colonialism both as a European venture and as an episode in African historical development. This course may not be offered annually.

HIST 05404: Arab-Israeli Conflict  
Prerequisites: HIST 05306
This course focuses on the history and development of the Arab-Israeli conflict from its genesis in the late 19th century to the present day. It covers a variety of topics including the origins of Zionism, Palestinian nationalism, the development of the conflict before 1948, the Arab-Israeli Wars, and peace plans. It is typically offered every other year.

HIST 05406: Jewish Holocaust 1933-1945  
Prerequisites: HIST 05306
This course examines this unprecedented human destruction by dividing it into two phases: origins in Germany before 1939 and the war itself. Its sweep encompasses the killers, the victims of all faiths and status and the onlookers. Because this is a case study of genocide, students are urged to form their own conclusions as to its meaning for our own time. This course may not be offered annually.

HIST 05407: History Of World War II  
Prerequisites: (HIST 05306 or AMST 13201) and (HIST 05101 or HIST 05120 or HIST 05151)
This course studies the causes and events of the Second World War with special attention to diplomatic and military history as well as to the personalities and cultural trends of the war. This course may not be offered annually.
Course Descriptions

HIST 05408: Chinese Cultural History 3 s.h.
Prerequisites: HIST 05306
This course covers essential features of Chinese culture from the 5th century BC to the present, including philosophy, religion, literature, geography, social and family structure, foreign cultural relations, and art. Students will also learn current scholarship on the subject and recent cultural trend. This course may not be offered annually.

HIST 05409: Latin American Revolutions And Reform 3 s.h.
Prerequisites: HIST 05306
This course examines the often violent movements in Latin American history directed to achieve social, economic, and political reform. It emphasizes the Mexican, Cuban, and Chilean movements. This course may not be offered annually.

HIST 05410: European Intellectual History Since The 16th Century 3 s.h.
Prerequisites: HIST 05306 and HIST 05306
This course covers the major themes in European intellectual history. It includes such topics as the birth and diffusion of the Enlightenment, Romanticism, 19th century liberalism, positivism, the Darwinian Revolution, Marxism, nationalistic thought, irrationalism in political and philosophical thought, existentialism and contemporary ideas. This course may not be offered annually.

HIST 05411: Topics In Latin American History 3 s.h.
Prerequisites: HIST 05306
This course analyzes selected topics in Latin American history since 1808. It reviews various topics and historiographical controversies. This course may not be offered annually.

HIST 05412: Intellectual History Of The U.S. 3 s.h.
Prerequisites: HIST 05150 and HIST 05306 or AMST 13201
This course deals with the main currents in American thought and society from colonial times to the present. It emphasizes discussion of high culture as essential to the understanding of the political and economic process of the American democratic experiment. This course may not be offered annually.

HIST 05413: Comparative Race Relations: South Africa, Brazil, And The U.S. 3 s.h.
Prerequisites: (HIST 05306 or AMST 13201) and HIST 05150 and HIST 05151
This course offers a comparative examination of the development of multi-racial societies in Brazil, South Africa and the United States, and the impact of race on the political, social and economic cultures of the respective countries. This course may not be offered annually.

HIST 05414: Diplomatic History Of The U.S. To 1900 3 s.h.
Prerequisites: (HIST 05306 or AMST 13201) and HIST 05150
This course surveys U.S. diplomatic history from the Revolutionary period through the emergence of the U.S. as a colonial power. The course stresses the impact of public opinion, cultural and political relations, as well as economic and strategic factors. It will analyze conflicting scholarly interpretations. This course may not be offered annually.

HIST 05415: Diplomatic History Of The U.S. Since 1900 3 s.h.
Prerequisites: HIST 05151 and (HIST 05306 or AMST 13201)
This course details the U.S. attempt to cope with the international complications and responsibilities brought about by 20th-century reality. The course stresses the impact of public opinion, cultural and political relations, as well as economic and strategic factors and analyzes conflicting scholarly interpretations. This course may not be offered annually.

HIST 05417: Women In Islam 3 s.h.
Prerequisites: HIST 05306
This course aims to acquaint students with the role of women in Islam as a religion. It focuses on the wide range of women's experiences in different periods of history and in diverse Muslim societies, and introduces students to a variety of works and approaches to the field, including primary and secondary sources. The course is typically offered every other year.

HIST 05418: Women In Europe To 1700 3 s.h.
Prerequisites: HIST 05100 and HIST 05306
This course traces the changing status and experience of women from classical civilizations through the early modern period of European history. Themes covered include women’s role in religious life, early women’s writings, women in the age of chivalry, early modern witch hunting, and the first stirrings of feminist thought. This course may not be offered annually.
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<th>Course Code</th>
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<tr>
<td>HIST 05419</td>
<td>Women In Modern Europe</td>
<td>3 s.h.</td>
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<td>Prerequisites: (HIST 05101 or HIST 05120) and HIST 05306</td>
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<tr>
<td>This course examines the history of women in modern Europe, from the 18th century to the 20th. Themes covered include the rise of domesticity, feminism in the age of revolutions, Victorian women, changing patterns of work and family, and the rise of women’s activism. This course may not be offered annually.</td>
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<tr>
<td>HIST 05422</td>
<td>Women In American History</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306 or AMST 13201</td>
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<td>This course focuses on the role of women in American history and culture, but some consideration is also given to Western traditions, myths and ideas which have affected American women. The range of topics is almost limitless. This course may not be offered annually.</td>
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<tr>
<td>HIST 05425</td>
<td>History Of Feminisms</td>
<td>3 s.h.</td>
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<td>Prerequisite: HIST 05306</td>
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<td>This course examines the history and origins of modern feminisms from European and American traditions to emergence in developing nations. Students will analyze and comprehend the intellectual, social, philosophical, political, and religious underpinnings of the development of feminisms from the Middle Ages to the present day in western and non-western contexts. This course may not be offered annually.</td>
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<tr>
<td>HIST 05428</td>
<td>Family History</td>
<td>3 s.h.</td>
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<td>Prerequisites: (HIST 05101 or HIST 05120) and HIST 05306</td>
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<td>A comparative and thematic study employing the methods and techniques of new social historians, this course gives students an understanding of the interplay between family and historical processes. This course may not be offered annually.</td>
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<tr>
<td>HIST 05429</td>
<td>Topics in History</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: (HIST 05306 or AMST 13201) and HIST 05101 and AMST 13201</td>
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<td>This course introduces students to in-depth historical analysis of a selected theme, including work with historical sources, critical reading of historians’ accounts, intensive writing and class discussion.</td>
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<th>Course Code</th>
<th>Course Title</th>
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<tr>
<td>HIST 05436</td>
<td>U.S. Home Front 1941-1945</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: HIST 05306 or AMST 13201</td>
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<tr>
<td>This course explores the lives of ordinary people under the strains of war, examining social and economic factors which undergirded the military and political decisions of World War II. This course may not be offered annually.</td>
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<tr>
<td>HIST 05437</td>
<td>Twentieth Century African Nationalism</td>
<td>3 s.h.</td>
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<td>Prerequisite: HIST 05306</td>
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<td>In this course students will explore the history of 20th century Africa through an in-depth analysis of independence movements from their roots in the European conquest of the continent at the turn of the century to their legacies in Africa today. This course may not be offered annually.</td>
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<tr>
<td>HIST 05438</td>
<td>History Of The Vietnam War</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306 or AMST 13201</td>
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<td>This course will explore the political, economic, military, diplomatic, social, and cultural dimensions and ramifications of the war from the perspective of all peoples involved. This course may not be offered annually.</td>
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<tr>
<td>HIST 05439</td>
<td>OTTOMAN HISTORY</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306</td>
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<td>This course will examine the history and development of the Ottoman Empire from its origins in the 13th century to its partition following World War I. Topics to be covered include its system of government and ruling elite, the cultural and daily life of Ottoman subjects, 19th and 20th century reform movements, and debates about the origins and “decline” of the empire. This course may not be offered annually.</td>
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<tbody>
<tr>
<td>HIST 05441</td>
<td>Imperialism And Colonialism</td>
<td>3 s.h.</td>
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<td>Prerequisites: HIST 05306 or AMST 13201</td>
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<td>This course analyzes nineteenth and twentieth century imperialism in terms of its meaning, origins and development. It emphasizes institutional background, theory and practice and the &quot;national liberation&quot; movements, using readings in primary sources and secondary interpretations. This course may not be offered annually.</td>
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HIST 05443: Topics in Global History
Prerequisites: HIST 05306
This course introduces students to in-depth historical analysis of a selected theme in global history, including work with historical sources, critical reading of historians’ accounts, intensive writing and class discussion. Past and proposed topics include the partition of Africa and Islamic reform movements.

HIST 05444: ISLAMIST MOVEMENTS
Prerequisites: HIST 05306
This course will explore the history of radical Islamist movements, commonly termed "Islamic Fundamentalists," and their increasing strength since the 1970s. Students will explore the writings of influential Islamist writers as well as the goals, ideology, and tactics of a wide variety of Islamist opposition groups, regimes, and groups operating in Western countries. This course may not be offered annually.

HIST 05445: History Of The Cold War
Prerequisites: HIST 05306 or AMST 13201
This course explores the history of the Cold War by combining lecture and class discussion in a format that seeks to immerse students in the complex series of peaceful and violent interactions between the Soviet Union and the United States (and their allies and client states) that made up the Cold War. The course will focus on several critical issues and the debates among historians over their causes and outcomes. Those issues include: the origins of the Cold War, Stalin and the Soviet system, the Berlin Crisis, war on the Korean peninsula, the Cuban Missile Crisis, the Vietnam War, detente, and the collapse of the Communist Bloc. This course may not be offered annually.

HIST 05446: Race, Identity And History In East Asia
Prerequisite: HIST 05306
This is an upper-level history course that explores race relations in modern societies from a comparative perspective. Following a basic chronology, the course will be taught thematically. After a brief introduction to the rise of racism in the modern Western world, it will trace ideas and discourses on race in China prior to the 19th century and examine their influence in shaping the world order in East Asia. It will then discuss how the racial discourses changed after the region was exposed to Western influences from the mid-19th century onward. Its foci are how the East Asians appropriated the racial discourses from the West, how they forged nationalist ideas and constructed nation-states, and how they wrote history from nationalist and racist perspectives.

HIST 05455: Gender, Sexuality And History
Prerequisites: HIST 05100, (HIST 05101 or HIST 05120) and HIST 05306
This course approaches the study of human sexuality from an historical point of view; i.e., how attitudes towards sexual behavior have varied over the centuries. The course uses the world of Western Civilization as an historical laboratory for the course. This course may not be offered annually.

HIST 05470: Issues In American History
Prerequisites: HIST 05306 or AMST 13201
This course introduces a topical approach to U.S. history and involves an analysis of major events and ideas that have shaped U.S. society that uses historical methodology and interpretation. The course covers issues such as race, sex and youth in American society and protest movements. This course may not be offered annually.

HIST 05471: History Of The American West
Prerequisites: HIST 05150 and (HIST 05306 or AMST 13201)
This course considers the settlement and economic development of the American West from the arrival of Europeans in the sixteenth century to the present. Among the topics considered will be: the role of the frontier in American history; the settlement of the region first by Native Americans and later by Europeans, Africans, and Asians; conflicts between Europeans and Native Americans; Manifest Destiny and American expansionism; the Gold Rush; vigilantism; women and the frontier experience; farming on the Great Plains; Mexican immigration; high technology and the economy of the modern West; and the frontier in the American imagination. This course may not be offered annually.

HIST 05472: Cultural History Of The U.S.
Prerequisites: (HIST 05306 or AMST 13201) and (HIST 05150 or HIST 05151)
This course explores trends in the fine arts and literature from 1607 to the present on three different levels: high style or urban culture, popular culture and rural or folk culture. It emphasizes specific American interpretations of parallel European developments. This course may not be offered annually.
Course Descriptions

HIST 05473: American Military History, 1775-Present 3 s.h.
Prerequisites: HIST 05306 or AMST 13201
A survey of American military experience since the Revolution, this course analyzes military action and its effect on the home front against a background of politics, technology, diplomacy, and personality. This course may not be offered annually.

HIST 05474: U.S. Labor History 3 s.h.
Prerequisites: (HIST 05150 or HIST 05151) and (HIST 05306 or AMST 13201)
This course examines the changing nature of the work and working conditions and the workers’ efforts to find their place in the American economy from colonial times to the era of the Wagner and Taft-Hartley Acts, with special attention to workers’ organizations. This course may not be offered annually.

HIST 05475: History Of New Jersey 3 s.h.
Prerequisites: HIST 05306 or AMST 13201
This course explores the historical background of the pre-European beginnings, colonial exploitation and settlement, the Revolution, growth of the state’s leading industries, the development of transportation and problems of government. This course may not be offered annually.

HIST 05492: Seminar 3 s.h.
Prerequisites: Senior Status and HIST 05306
This course concentrates on a research paper of substantial length based upon primary as well as secondary sources. The course also requires critical analysis and discussion of the papers by seminar participants. Required of History majors during their senior year.

HIST 05493: Independent Study 3 to 6 s.h.
This course provides an opportunity to pursue individual specialized historical topics under the guidance of a staff member. This course may not be used as substitute for a course offered by the Department. This course may not be offered annually.

HIST 05495: Internship In History 3 s.h.
Prerequisites: HIST 05306
This course will introduce students to public history by placing them with a public history agency such as an historic site, museum, library, historical society, archives, or similar institution, where they will serve as interns for a minimum of 120 hours during the semester. The students will acquire practical experience in such work as historic preservation, exhibit design and production, library and archives cataloging, journal editing, and museum education. This course may not be offered annually.

HONR 01111: Writing Arts: College Composition I 3 s.h.
Prerequisites: Admitted to the Bantivoglio Honors Concentration or having a GPA of 3.00 or higher
This is a lower level interdisciplinary general education course that can be taken by Bantivoglio Honors Scholars or Honors-eligible students. The course will utilize an interdisciplinary approach to rhetoric, composition, argument, and research to study an interdisciplinary topic which will vary each semester.

HONR 01112: Writing Arts: College Composition II 3 s.h.
Prerequisites: HONR 01111 or COMP 01111 and Admitted to the Bantivoglio Honors Concentration or have a GPA of 3.00 or higher
This is a lower level interdisciplinary general education course that can be taken by Bantivoglio Honors Scholars or Honors-eligible students. The course will utilize an interdisciplinary approach to rhetoric, composition, argument, and research to study an interdisciplinary topic which will vary each semester.

HONR 05101: Honors: Participation 0 s.h.
Prerequisites: Admitted to the Bantivoglio Honors Concentration.
This is a non-credit Honors course in which all Honors Concentration students are enrolled each semester. The course is graded on a Pass/No Credit basis. Each Honors student will complete a portfolio of her/his extracurricular activities in the areas of educational enhancement, service and social activities in accordance with the Honors Concentration requirements. The portfolio will consist of a one-page summary of each of the extracurricular educational, service and social activities in which the student participated during the past semester.

HONR 05180: Mathematics 3 to 4 s.h.
Prerequisites: Admitted to the Bantivoglio Honors Concentration or have a GPA of 3.00 or higher
This is a lower level general education course which provides the student with a working knowledge of the foundations of mathematics. Basic concepts and principles in the philosophy of mathematics and mathematical logic, including set theory, and the concept of infinity and proof will be explored. Mathematical applications form a major portion of the course.

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HONR 05205: Humanities
Prerequisites: Admitted to the Bantivoglio Honors Concentration or have a GPA of 3.00 or higher
This is an interdisciplinary course which will fulfill a Humanities/Languages General Education course. It introduces the student to significant primary texts, taken from literature, philosophy, religion, and history, within the Western and non-Western traditions and provides a common base of cultural literacy. Emphasis is placed on critical thinking and the qualitative evaluation of human experience.

HONR 05214: Artistic And Creative Experience
Prerequisites: Admitted to the Bantivoglio Honors Concentration or have a GPA of 3.00 or higher
This is an interdisciplinary general education course which will fulfill a Rowan Experience artistic and creative experience requirement. The course will utilize an interdisciplinary approach to the study of the various types of fine and performing arts including art, music, theatre and dance, and radio/TV/film.

HONR 05217: Literature
Prerequisites: Admitted to the Bantivoglio Honors Concentration or have a GPA of 3.00 or higher
This is an interdisciplinary general education course which will fulfill a Rowan Experience literature requirement. The course will utilize an interdisciplinary approach to the study of the literature with the goals of increasing students' understanding and enjoyment of various types of literature including drama, novel, poetry and short story. The content and pedagogy of the course is qualitatively and quantitatively designed to meet the intellectual needs of Honors students. Topics will vary each semester and will be interdisciplinary in content and/or methodology. This course will satisfy the University's general education "literature" requirement.

HONR 05285: Natural Science
Prerequisites: Admitted to the Bantivoglio Honors Concentration or have a GPA of 3.00 or higher
This is an interdisciplinary general education course which can be taken by honors students as a Natural Science Rowan Experience course. It permits students to explore the natural sciences from a problem-oriented perspective. Students are encouraged to examine evidence and assess scientific theories critically.

HONR 05290: Social Science
Prerequisites: Admitted to the Bantivoglio Honors Concentration or have a GPA of 3.00 or higher
This is an interdisciplinary general education course which will fulfill a general education Social and Behavioral Science elective. It provides the student with the opportunity to examine, in-depth, a contemporary social issue. This course explores a given substantive concern from several social science perspectives; anthropological, historical, political, economic, psychological, social, and cultural theories and methods are applied to the analysis of that issue.

HONR 05390: Selected Topics
Prerequisites: Admitted to the Bantivoglio Honors Concentration or have a GPA of 3.00 or higher
This is an upper level interdisciplinary seminar style course that will address itself to topics and problems taken from various disciplines.

HONR 05400: Honors Independent Study
Prerequisites: Admitted to the Bantivoglio Honors Concentration, four Honors courses and 57 hours completed, approval by the Honors Board.
An upper level interdisciplinary course involving an approved Honors Research Assistantship project supervised by a faculty member.

BINF 07250: Introduction to Bioinformatics
Prerequisites: CHEM 06101 and BIOL 01106 and CS 04103
This introductory survey course in bioinformatics covers the application of modern computational methods to the fundamentals of molecular biology (protein and DNA structure, transcription and translation). The multidisciplinary nature of bioinformatics will be highlighted through examples of computational approaches to solving biological, biochemical, and applied biomedical research problems. Emphasis is placed on the interplay between computational methods and how they are applied to solve problems in biology and biochemistry.

INTR 01102: Introduction To Social Science: Self, Society And Power
This is an interdisciplinary general education course intended to introduce social science thinking, concepts and methods. The course describes the core social science disciplines and their typical methods and examines the common themes of self, society and power through readings selected from such prominent contributors to social science as Sigmund Freud, Erving Goffman, Ruth Benedict, and Karl Marx.
Course Descriptions

INTR 01107: Rowan 101: College Success 2 s.h. 
Prerequisite: None
This course provides support during freshman students’ transition to college level work; engagement with the Rowan community; and planning for major and career. Included among many topics are discussions of academic skills, identity and diversity, academic integrity, and financial literacy.

INTR 01120: Biology, History, And Human Societies 3 s.h.
This course explores the ultimate causes of differences in the development of human societies over approximately the last 13,000 years. Students will be introduced to the methods of two disciplines, history and evolutionary biology. This course will reveal the importance of an interdisciplinary approach for addressing a major question in human history: why did early societies on different continents develop at different rates?

INTR 01130: Women And Gender In Perspective 3 s.h.
An introduction to Women's and Gender Studies, this course surveys the field, focusing on how both men and women are depicted and represented in culture: in the arts, in popular media, in the sciences and in psychology, sociology and history. This interdisciplinary course probes questions of sex roles, sexism in language, stereotyping in society.

INTR 01132: Biology, History, And The Fate Of Human Societies 3 s.h.
This course explores the ultimate causes of differences in the development of human societies over approximately the last 13,000 years. Students will be introduced to the methods of two disciplines history and evolutionary biology. This course will reveal the importance of an interdisciplinary approach for addressing a major question in human history: why did early societies on different continents develop at different rates?

INTR 01134: Readings In American Democracy 3 s.h.
This course will acquaint students with the theoretical and intellectual underpinnings of American democracy by providing opportunities to read, respond to, discuss, and write about seminal American political literature from diverse times and perspectives.

INTR 01136: Gateway To Asia 3 s.h.
Combining visual presentations with other innovative pedagogical methods, this course offers an introduction to various aspects of Asian culture, ranging from philosophy, history, and social structure to literature, martial arts, and family and gender relations. Students will not only learn and discuss important issues related to the study of Asian cultural developments and the Asian American experiences, they will also acquire first hand experience through field trips, live demonstrations, and the exchange of ideas in and outside the class.

INTR 01138: Issues In Sustainable Development 3 s.h.
This course is an introduction to local and global sustainability challenges. The course will discuss the environmental dimensions of development at the local and global level addressing issues such as resource use, greenhouse gas emissions, and population growth. The course will also focus on technological solutions to sustainable development.

INTR 01140: Diverse Approaches To Environmental Literature 3 s.h.
This is a multidisciplinary course that addresses the understanding of diversity of selected environmental issues at local, regional and global settings and in a historical context through the reading of literature pieces. The selected readings will help students to understand today’s environmental challenges, and to think about the profound ethical, political, economic, religious, and technological implications of these challenges.

INTR 01142: Three Generations Of Family Life: Diversity And Democracy Through Family 3 s.h.
Using the concepts of diversity and democracy as the common unifying scheme, students will employ a sociological perspective to explore the macro level changes in the family as an institution as well as the parallel micro level changes in the life of their own families. The historical period under examination extends from 1880 to 1970 and, thus, captures approximately three generations of family life. The changes in family life will be explored within the larger context of the political, economic and social changes that characterize the historical period under examination.

INTR 01144: Human Ecology: An Evolutionary Approach 3 s.h.
This course will take an evolutionary approach to understand how the environment has shaped biological and cultural changes in humans, and how humans have and are continuously impacting the environment. The emphasis of this course will be to understand the biological, cultural and environmental diversity that has emerged through human history and its impact in the intricate interactions among humans and between humans and their environment.
**Course Descriptions**

**INTR 01146:** Identity, Culture, And Democracy: Being An American
3 s.h.
This interdisciplinary course strengthens writing and critical thinking skills through explorations of one's cultural history, an investigations on American society and national identity(ies). This multi-disciplinary course will acclimate students to American cultural and political roots and sensitize students to patterns of difference that constitute life in the twenty-first century United States.

**INTR 01148:** Environmental Ethics: Through The Lens Of Diversity
3 s.h.
This is a multidisciplinary course that addresses ethical issues and concerns regarding the environment; the relationships between individual, society and the natural environment; the importance of different attitudes and world-views for understanding and responding to environmental challenges; and the need for changes in those attitudes and world-views. Students will be encouraged to think about the profound ethical, political, economic, religious, and technological implications of these environmental challenges.

**INTR 01150:** Language, Rhetoric, And Propaganda: The Weapons Of The Cold War
3 s.h.
This course introduces students to knowledge of the political, social, economic and cultural history of the Cold War. Students will learn to critically and rhetorically analyze scholarly writing and decipher and evaluate primary source documents relating to the history of the Cold War.

**INTR 01152:** Beyond Face Value: Critical Analysis Of Texts And Images
3 s.h.
This is an interdisciplinary course that addresses the social construction of identity from three interconnected, disciplinary perspectives: literature, art and gender studies. This class will teach students how to read stories and images critically in order to uncover the often hidden ways certain aspects of lived identity are presented and/or experienced as "natural" when they, in fact, are constructed by the society in which we live.

**INTR 01154:** Emotions In Organizations
3 s.h.
This course will consider the role of emotions in organizational settings. Attention will be paid to the nature of emotions, emotional expression, and perceptions of emotions. Factors related to emotions, including cultural and individual diversity will be addressed throughout the course.

**INTR 01156:** Freedom And Artistic Expression In 20th Century America
3 s.h.
This course is designed to help students understand what free speech is, the legal limits on free speech, and current debates on free speech. Additionally, students will come to understand aesthetics, aesthetics as related to the arts, and how aesthetics changed as America into and through the 20th century. Specifically, this course will enable the students to see how specific art works comment on current events or are a reaction to the suppression of speech/expression and how artists have been subjected to control while pursuing their arts in the United States during the 20th century. The course will also help students appreciate diversity by studying various works of art and various artists, and will help students understand democracy by examining free speech and related issues in art and artistic expression.

**INTR 01158:** From Nancy Drew To Lara Croft: Historical And Critical Dimensions Of The Female Detective Genre
3 s.h.
This course analyzes historic and multi-cultural constructions of the female detective/action figure in literature, motion pictures, and video games. Students will confront a variety of texts in order to increase their awareness of how cultural assumptions come into play and often unconsciously influence their reading and viewing of texts. The course will culminate in the development and implementation of a cooperatively devised critical thinking rubric, which allows students to more critically analyze textual and visual media.

**INTR 01160:** Growing Up Female In 20th Century America: Historical And Psychological Perspectives
3 s.h.
This course combines the historical and psychological approaches to female adolescence in the 20th century America from a multicultural perspective. Its topics include the historical development of adolescence, theories of adolescent development, and representations of female adolescence.

**INTR 01162:** The Leadership Of Ideas
3 s.h.
The college experience includes constant engagement with new and challenging ideas. This course explores how little ideas become big and public ideas by drawing on the knowledge and experiences students bring to college. The course will focus on the learning mechanisms for expanding those ideas. The intent is to enhance the student's academic experience by exploring critical thinking skills and developing concrete strategies that lead to lifelong learning success.
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<td>INTR 01164:</td>
<td>Science Fiction As A Gateway To Human Diversity</td>
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<td>This course will explore the intersection between the ways in which scientific theories (especially evolutionary and genetic ones) are used to justify or reduce discrimination in human societies and the hypothetical exploration of similar issues in science fiction literature. Students will critically examine examples of utopian and dystopian science fiction and investigate how such writings can inform our thinking about current, real-world diversity issues.</td>
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<td>INTR 01166:</td>
<td>Rhetoric Of Music - Rs</td>
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<td>This course examines the rhetoric of music with particular emphasis given to the rhetorical aspects of music's aural, non-discursive elements. The course will consider how these elements functioned in diverse cultures and political systems from antiquity to the twentieth century.</td>
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<td>INTR 01168:</td>
<td>What'S Wrong With Normal? - Rs</td>
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<td>This course will address the topic of the body and physical difference as it is theorized in Disability Studies. As a Rowan Seminar, special attention will be paid to basic skills and critical inquiry. Particular topics will include Deaf culture, Supercrips, Accessibility, the ADA, images of disability and resistance to normative structures of embodiment.</td>
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<td>INTR 01170:</td>
<td>Law And Order - Rs</td>
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<td>This course explores the three components of the criminal justice system: police, courts, and corrections, based on our understanding of Nature's order. In particular, it presents the case for taking a mathematical and scientific approach to dealing with many of the issues facing our criminal justice system today: racial profiling, affirmation action hiring, cost of crime, cost effectiveness of prevention and rehabilitation programs, admissibility of evidence, standards of proof, incarceration policies. These issues will provide context for developing mathematical proficiencies such as calculating means, percentages, and rates of change; representing quantitative information visually; and making predictions by extrapolating from existing data. The underlying theme will be to quantitatively analyze whether our legal policies reflect and protect the interests of diverse groups in our society pertaining to issues of social order, civil liberties and fairness.</td>
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<td>INTR 01172:</td>
<td>Songs Of Praise/Protest - Rs</td>
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<td>This course will examine the ways in which music has served as an instrument for social change. African-American music in the form of Spirituals and Blackface Minstrelsy will provide a mechanism for exploring social change, tensions between races, confused dynamics of racial identity, and stereotypes. Hymns of the late 18th and early 19th century will demonstrate how women used song as a means of self-expression denied them in other spheres. Finally, the civil rights and protest songs of the 60s and 70s will provide a backdrop for exploring issues of race and social culture.</td>
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<td>INTR 01174:</td>
<td>Ethics And The Professions</td>
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<td>This course will provide students with a critical examination of moral and ethical issues that arise in the context of various professions. The course will address and seek to bridge conceptual issues with more practical real-life examples. Students will discuss longstanding philosophical questions concerning social justice, equality, and the place of religion in a diverse society.</td>
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<td>INTR 01176:</td>
<td>Historical Aesthetics Of Suffering</td>
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<td>The subject of suffering is a universal one, and forces all human beings to acknowledge the commonality of a shared experience. Yet, while this phenomenon transcends time and place, and is inclusive of all communities and their members, responses to, and representations of suffering may, and have, differed greatly. This class is intended to prompt reflection upon the diversity of questions and answers provoked by suffering in various socio-historical contexts, as preserved in contemporary accounts, religious and philosophical writings, literature, drama, the visual arts, and music. A detailed examination of these documents, texts, and performances hopefully will move students from initial, personal understanding of this complex topic, towards group empathy and cultural sensitivity, as well as fostering appreciation and respect for the many, and profound ways in which individuals and societies have wrestled with tragedy.</td>
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<td>INTR 01178:</td>
<td>In Search Of Democracy: The Quest For Civil Liberties</td>
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<td>This course will explore critical issues in contemporary civil rights, placing them in their historical, philosophical and political contexts. Specific issues to be discussed include separation of church and state, freedom of speech, the role of the federal government in the protection of civil liberties, the right to privacy and its implications for women's reproductive rights, and Prohibition and its implications for gay marriage and marijuana.</td>
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<td>INTR 01200:</td>
<td>Issues In Women'S Health</td>
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<td>This interdisciplinary course examines issues in women's health. Biological, socio-cultural, psychological, historical and political processes that shape and define women's health and healthcare experiences will be explored, including the ways in which medical knowledge has been applied to women.</td>
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Women, Sex, And Power: A Capstone Seminar In Women'S Studies 3 s.h.
This capstone seminar will be interdisciplinary in focus with a writing-intensive component. Students in this course will engage in critical analyses of selected readings on women and gender from six different subject areas, including biology, history, literature, psychology, philosophy and sociology. Students will study and learn the dominant issues and debates concerning the study of women and gender within these specific academic disciplines.

Interdisciplinary Materials Science 3 s.h.
This interdisciplinary course discusses selected topics of current technological importance drawn from the field of materials science. Three faculty members from different backgrounds in engineering and science will co-teach this course, offering the students different perspectives to a given topic. The topics are chosen by the faculty and may include nanotechnology, semiconductors, polymers, inorganic materials, superconductors, fiberoptics, spintronics, and photonics.

Career Planning And Development For Bgs 2 s.h.
This course will provide career development for all students in the Bachelor of General Studies Program. Students will engage in self-assessment, career exploration, job search strategies and decision making.

New Media Practicum 3 s.h.
Prerequisites: RTF 03295 and RTF 03394 and completion of 3 electives from approved list for Concentration in New Media Communication.
New Media Practicum provides students with the opportunity to integrate the knowledge they have gathered through the Concentration in New Media by synthesizing what they have learned into a cohesive and sophisticated project that will be exemplary of the student’s particular strengths and interests. In addition to the experiential benefit of producing the capstone project, the student is also expected to present the work in such a way that it can serve as part of or a complete portfolio of new-media work that would be of interest to potential employers, graduate schools, or other interested parties. Students plan the project with an assigned adviser and meet various agreed-upon milestones throughout the semester.

Bachelor Of General Studies Portfolio 1 s.h.
This course is limited to students enrolled in the General Studies Program.
This course is the portfolio component required for all students in the Bachelor of General Studies Program. Students will analyze their academic progress through self-reflective assessment.

Senior Seminar In Math/Science 3 s.h.
Prerequisites: COMP 01112
This course provides the opportunity for students to engage in their own research into specific scientific topics and to significantly advance their own scholarly development in the field. Students will interact with the instructor and the other students in the seminar in the development and completion of their individual projects. The central theme will vary by semester. Topics will include case studies of applied and theoretical math and scientific research.

Internship In Applied Liberal Arts 3 s.h.
Prerequisite: 30 credits required
The course will provide formal opportunities and guidance for liberal arts students seeking to explore the wide variety of careers open to students with degrees in the humanities and social sciences. This program will allow Rowan students to explore careers in the corporate, non-profit, and public sectors. The course will be offered annually.

Environmental Internship 6 s.h.
The internship provides for career-oriented training outside the college under the guidance of a faculty adviser and an experienced sponsor. Assignments will be based on matching the needs and objectives of the students and sponsors. Students become involved in work with a community resource group, industry, governmental agency, etc.

Military Science I Lab 0 s.h.
Military Science I - Basic Leadership Laboratory/Practicum 1 s.h.
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (No service obligation)
Military Science I - Basic Leadership Laboratory/Practicum 1 s.h.
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (No service obligation)
MILS 01110: Military Science I - Leadership And Personal Development  2 s.h.
Introduces students/cadets to the personal challenges and competencies that are critical for effective leadership. Focus is placed on developing basic knowledge and comprehension of the U.S. Army's Leadership Dimensions while gaining a "big picture" understanding of the Army ROTC program, its purpose in the U.S. Army and our nation, and its advantages for the student. Classes are conducted for one hour once each week. (No service obligation).

MILS 01120: Military Science I - Foundations In Leadership  2 s.h.
Reviews leadership fundamentals such as setting direction, problem solving, listening, presenting briefs, providing feedback and using effective writing skills. Students/cadets are also exposed to key fundamentals of skills required to be successful as an MS II cadet; namely, military map reading and land navigation, and small unit operations/leadership drills. (No service obligation).

MILS 01150: American Military History 1650 - Present  3 s.h.
The focus of the Army Military History Course is to examine the relationship of the military to American society and the value of military history to the professional officer. The course will cover American military history through the American Revolution to the current 'War on Terror'. This is a very large span of time to cover in one class, thus not every war, conflict or interwar period can be touched upon. At the conclusion of this course students will have a basic understanding of major conflicts in which the United States has been involved, what brought the nation to the decision of war and what the outcomes were.

MILS 01201: Military Science II - Military Science II Lab  1 s.h.
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (No service obligation)

MILS 01202: Military Science II - Basic Leadership Laboratory/Practicum  1 s.h.
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (No service obligation)

MILS 01210: Military Science II - Innovative Tactical Leadership  2 s.h.
Prerequisites: MILS 01110 or MILS 01120 Minimum Grade of B
Explores the dimensions of creative and innovative tactical leadership strategies and styles by studying historical case studies and engaging in interactive student exercises. Focus is on continued development of the knowledge of leadership values and attributes through an understanding of rank, uniform, customs and courtesies. (No service obligation).

MILS 01220: Military Science II - Leadership In Changing Environments  2 s.h.
Prerequisites: MILS 01210, MILS 01110, MILS 01120 andMinimum Grade of B
Examines the challenges of leading in complex contemporary operational environments. Students/cadets are exposed to more complex land navigation/map reading tasks, as well as more advanced small unit operations/leadership drills. Cadets develop greater self awareness as they practice communication and team building skills. (No service obligation).

MILS 01301: Military Science III - Advanced Leadership Laboratory/Practicum  1 s.h.
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (Service obligation upon enrollment in MILS 01.310 and MILS 01.301.)

MILS 01302: Military Science III - Advanced Leadership Laboratory/Practicum  1 s.h.
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills.

MILS 01310: Military Science III - Leadership In Contact  2 s.h.
Corequisites: MILS 01301 Prerequisites: MILS 01101, MILS 01102, MILS 01201 and MILS 01202
Uses increasingly intense situational leadership challenges to build cadet awareness and skills in leading small units. Skills in decision-making, persuading, and motivating team members when "in combat" are explored, evaluated, and developed. (Service obligation incurred upon enrollment in MILS 01.310.)

MILS 01320: Military Science III - Complex Team Leadership Issues  2 s.h.
Prerequisites: MILS 01310 Minimum Grade of B, MILS 01101, MILS 01102, MILS 01201 and MILS 01202
Challenges cadets with more complex leadership issues to further develop, practice, and evaluate adaptive leadership. Cadets continue to analyze and evaluate their own leadership values, attributes, skills, and actions in preparation for the Leadership Development and Assessment Course (LDAC). Primary attention is given to preparation for LDAC and the development of both tactical skills and leadership qualities.
**Course Descriptions**

**MILS 01401:** Military Science IV - Senior Leadership Laboratory/Practicum  
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills.

**MILS 01402:** Military Science IV - Senior Leadership Laboratory/Practicum  
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills.

**MILS 01410:** Military Science IV - Developing Adaptive Leaders  
Corequisites: MILS 01401; Prerequisites: MILS 01310 and MILS 01310 Minimum Grade of B  
Develops cadet proficiency in planning, executing, and assessing complex operations, functioning as a member of a staff, and providing leadership performance feedback to subordinates. Cadets are given situational opportunities to assess risk, make ethical decisions, and provide coaching to fellow ROTC cadets.

**MILS 01420:** Military Science IV  
Prerequisites: MILS 01410 Minimum Grade of B  
Explores the dynamics of leading in the complex situations of current military operations. Cadets examine differences in customs and courtesies, military law, principles of war, and rules of engagement in the face of international terrorism. Aspects of interacting with non-government organizations, civilians on the battlefield, and host nation support are examined and evaluated.

**JRN 02205:** Journalism Principles And Practices  
Prerequisites: COMP 01111  
This course introduces students to the world of journalism: the culture, commerce, ethics, history, working conditions, rights, responsibilities, standard practices, and effects of evolving technology. Students learn about the nature of a journalism career and gather information that will serve as a foundation for their future journalism skills as well as for their lecture and seminar courses.

**JRN 02210:** Journalistic Writing For Nonmajors  
Prerequisites: COMP 01112  
This course introduces students to a wide variety of news writing forms. The course covers material ranging from news writing to features, editorials, sports copy and blogging. Students learn how to strengthen their writing through techniques such as using active voice, varying sentence length, and copy editing. The course is designed for non-Journalism majors.

**JRN 02305:** TV Newscast  
Prerequisites: JRN 02310  
Students write, gather, edit, and present a cable newscast on Rowan University's closed-circuit cable system and adapt that newscast for transmission over the Web. During the semester, students rotate through various duties, including writing, anchoring, reporting and producing.

**JRN 02307:** On-Camera Field Reporting  
Prerequisites: JRN 02341  
On-Camera Field Reporting provides the fundamentals of reporting and includes writing, camera shooting techniques, editing, gathering sources, and on-camera presentation to perform "one-man band" responsibilities in any television market. Students will gain extensive hands-on experience that will produce a resume reel for their portfolio. Skills acquired can be used to edit online video components for news outlets.

**JRN 02310:** News Reporting I  
Prerequisites: JRN 02205  
This course teaches students basic reporting and writing skills. They learn newspaper style and use a computer to write basic stories that deal with accidents, obituaries, construction, statistics, speeches, interviews and polls. Students also learn how to write humorous stories and how to rewrite news releases. Students take weekly spelling and style quizzes to sharpen writing skills.

**JRN 02311:** News Reporting II-Wi  
Prerequisites: JRN 02310 and COMP 01112  
This course stresses government reporting. Students learn about the Sunshine Law and how to deal with government sources. They use a computer to write stories about governing bodies, zoning and planning boards, school boards, budgets, arrests, hearings, arraignments, indictments and trials. Students cover a local community and write various meeting stories.
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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
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<tbody>
<tr>
<td>JRN 02312</td>
<td>Feature Writing</td>
<td>3 s.h.</td>
<td>JRN 02310</td>
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<td>Designed to develop competence in the writing of features, editorials, sports, reviews and columns, the course offers students ample opportunity to become familiar with each journalistic form through writing.</td>
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<tr>
<td>JRN 02313</td>
<td>Magazine Article Writing</td>
<td>3 s.h.</td>
<td>JRN 02310 or JRN 02210 or PR 06501 or WA 01300 with a grade of C- or better</td>
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<td>Students get started as freelance magazine article writers by conceiving article ideas, interviewing, researching, and writing. The course provides instruction in adjusting style and slant to reach potential readers. Students learn to sharpen writing, resolve clarity problems, and add vigor to writing. The course analyzes freelance markets. Students submit work for publication.</td>
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<tr>
<td>JRN 02314</td>
<td>Photojournalism</td>
<td>3 s.h.</td>
<td>JRN 02310 or JRN 02210 or PR 06301 or WA 01300 with a grade of C- or better</td>
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<td>This course covers the practices and techniques used by photojournalists on modern American newspapers. Students take digital photographs and edit in Photoshop. Weekly laboratory assignments are required.</td>
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<tr>
<td>JRN 02317</td>
<td>Publication Layout And Design</td>
<td>3 s.h.</td>
<td>JRN 02310 or JRN 02210 or PR 06501 or WA 01300 with a grade of C- or better</td>
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<td>This course focuses on design, layout and make-up of brochures, magazine and newspaper pages, newsletters, and advertisements. It stresses how to coordinate art and typography with content. A workshop approach is used to show students how creativity in design can increase the effectiveness of communication. Students learn how to work with the QuarkXPress program on the Macintosh computers to achieve effective layout.</td>
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<tr>
<td>JRN 02318</td>
<td>Investigative Journalism</td>
<td>3 s.h.</td>
<td>JRN 02310</td>
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<td>This course acquaints students with federal and state public records laws. They learn where to find and how to use public records at federal, state, county, and local levels. Students investigate property records, records on public officials and business and nonprofit records. They use this and other information to write long-form journalism articles.</td>
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<tr>
<td>JRN 02319</td>
<td>Media Ethics</td>
<td>3 s.h.</td>
<td>JRN 02205 or RTF 03295 or PR 06501</td>
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<td>Media Ethics examines decision-making in media professions. The course examines the moral aspects of media conduct, and helps the student develop a more complete understanding of not only the historical background of ethics, but how the interplay of politics, science, economics, law, philosophy, and other disciplines have influenced the way we view right and wrong. The course also strengthens analytical skills as they relate to ethical decisions, cultivating a perception of how media professionals come to a decision and the many factors that influence that decision.</td>
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<tr>
<td>JRN 02320</td>
<td>Radio News</td>
<td>3 s.h.</td>
<td>JRN 02310 or JRN 02210 or PR 06501</td>
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<td>This course provides training in the necessary skills students must demonstrate to obtain entry-level employment as news reporters and editors in radio. Students learn broadcast writing and reporting techniques. The course is designed primarily for those interested in newscasting as a career.</td>
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<tr>
<td>JRN 02321</td>
<td>Online Journalism I</td>
<td>3 s.h.</td>
<td>JRN 02310 or JRN 02210 or PR 06501</td>
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<td>This course examines the online news landscape. Students learn which principles of traditional journalism can and should be applied to writing online news, and which should not. Students explore how to write news in ways that leverage the unique aspects of the online environment.</td>
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<tr>
<td>JRN 02322</td>
<td>The Publishing Industry</td>
<td>3 s.h.</td>
<td>JRN 02310 or JRN 02210 or PR 06501</td>
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<td>The Publishing Industry examines the business and practice of publishing through broad readings and research related to industry operations and trends, field trips, guest speakers, interactive projects, and directed discussion. Students explore publishing aspects of books, magazines, newspapers, online material, blogging, podcasting, self-publishing, and editing. When students complete this course, they will have a better idea of the career path they would like to pursue.</td>
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<tr>
<td>JRN 02323</td>
<td>Crime Reporting</td>
<td>3 s.h.</td>
<td>JRN 02310 with a grade C- or better</td>
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<td>The class explores one of the most durable and important aspects of journalism, focusing not only on the mechanics of crime but also on how the story reflects the undercurrents of conflict in society as a whole. Crime Reporting focuses on how to gather information and turn it into a narrative that both tells the story and explores the issues behind the story. Emphasis will be on researching existing databases and analyzing actual documents. Students will be required to enroll in PACER, a federal court tracking system.</td>
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### JRN 02324: Health Reporting
**Prerequisite:** JRN 02310 with a grade of C- or better or by permission

From news bulletin on peanut butter recalls to a feature story on concussions in football, from advice on preventing sunburn to in-depth examinations of how the aging of America impacts the economy, health reporting keeps the public informed about issues affecting their well-being. In this journalism class, students will learn through real-world practice, guest speakers, and field trips how to report and write about health issues. Topics include public health, healthcare reform, and health trends.

### JRN 02325: Online Journalism II
**Prerequisites:** JRN 02321

Students will learn to conceptualize, design, and implement a basic website, with emphasis on content creation and presentation. The course will examine content strategy, editing, and production techniques for sites related to newspapers, television, radio, public relations, and advertising.

### JRN 02326: Sports Broadcast
**Prerequisites:** JRN 02361 with a grade of C- or better or JRN 02310 with a grade of C- or better or JRN 02210 with a grade of C- or better or by permission

Sports Broadcast will include play-by-play, color commentary, pre-game and post-game analysis. Students will learn reporting techniques unique to the world of sports coverage, including interviewing sports figures. They will gain onsite experience at Rowan's radio station as well as with Rowan's television network as they become proficient in sports talk and sports reporting for broadcast.

### JRN 02332: The Publishing Industry
**Prerequisites:** 75 credits required

The Publishing Industry examines the business and practice of publishing through broad readings and research related to industry operations and trends, field trips, guest speakers, interactive projects, and directed discussion. Students explore publishing aspects of books, magazines, newspapers, online material, blogging, podcasting, self-publishing, and editing. When students complete this course, they will have a better idea of the career path they would like to pursue.

### JRN 02335: Media Law
**Prerequisites:** 45 credits required

This course examines laws that deal with the legal responsibilities of print, broadcast, online and film media as well as public relations and advertising practitioners. Students analyze topics such as libel, privacy, broadcast regulations, and copyright.

### JRN 02341: Broadcast News Writing
**Prerequisites:** completion of 45 earned hours

Broadcast News Writing provides instruction in the fundamentals of television news writing essential to all careers in television news. Students will explore the fast-paced world of writing breaking news for television. They will learn how to write in TV broadcast style and write news blogs to build their student portfolios.

### JRN 02355: Journalism Practicum Fall
**Prerequisites:** 75 credits required

Journalism Practicum allows students to apply their skills and knowledge by working on-campus with department faculty on a variety of technical, creative, or research-related assignments. Students earn 1 credit for every 40 hours of work, with most practica implemented for 3 credit hours. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum and are evaluated by their faculty supervisor. Journalism Practicum Fall is offered in the fall. Practica may be taken in any order.

### JRN 02356: Journalism Internship Fall
**Prerequisites:** 75 credits required and Journalism major with 2.5 Major GPA

Under professional supervision in the field, students practice theories and skills learned in the classroom. Students earn 1 credit for every 40 hours of work, with most field experiences implemented for 3 credit hours. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum, and are evaluated by their faculty supervisor. Journalism Internship Fall is offered in the fall. Internships may be taken in any order.

### JRN 02357: Journalism Practicum Spring
**Prerequisites:** 75 credits required

Journalism Practicum allows students to apply their skills and knowledge by working on-campus with department faculty on a variety of technical, creative, or research-related assignments. Students earn 1 credit for every 40 hours of work, with most practica implemented for 3 credit hours. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum and are evaluated by their faculty supervisor. Journalism Practicum Spring is offered in the spring. Practica may be taken in any order.
Course Descriptions

JRN 02358: Journalism Internship Spring 1 to 3 s.h.
Prerequisites: 75 credits required and Journalism major with 2.5 Major GPA
Under professional supervision in the field, students practice theories and skills learned in the classroom. Students earn 1 credit for every 40 hours of work, with most field experiences implemented for 3 credit hours. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the internship, and are evaluated by their faculty supervisor. Journalism Internship Spring is offered in spring. Internships may be taken in any order.

JRN 02359: Journalism Internship Summer 1 to 3 s.h.
Prerequisites: 75 credits required and Journalism major with 2.5 Major GPA
Under professional supervision in the field, students practice theories and skills learned in the classroom. Students earn 1 credit for every 40 hours of work, with most field experiences implemented for 3 credit hours. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum, and are evaluated by their faculty supervisor. Journalism Internship Summer is offered in the summer. Internships may be taken in any order.

JRN 02361: Sports Journalism I 3 s.h.
Prerequisite: 45 earned hours
This introduction to Sports Journalism focuses on practical experience as well as study of professional sports journalists. Students cover Rowan University sports teams and learn to produce professional-quality game stories, feature stories, columns, and a comprehensive enterprise package. In addition, students are required to file weekly reports detailing their Internet tracking of professional journalists, with a focus on the amount, variety, and quality of their work.

JRN 02362: Sports Journalism II 3 s.h.
Prerequisite: JRN 02361
Students will build on sports writing skills learned in Sports Journalism I. Students will work in teams to form sports staffs that will produce sports sections on a biweekly basis. These sections will include game stories, features and columns, as well as "surprise" stories. The sports staffs will compete with each other to produce the most compelling, timely, informative, opinionated and entertaining sections. Each student will spend time in a different role - beat writer, feature writer, columnist, general-assignment writer, and assigning editor.

JRN 02360: Independent Study - Journalism 1 to 3 s.h.

JRN 02410: Journalism Senior Seminar-Wi 3 s.h.
Prerequisite(s): COMP 01112 or HONR 01112 or ENGL 01112 or ENGR 01201 with a grade of C- or better and 90 credit hours and JRN 02311 with a grade of C- or better
The course probes four issues: ethics, group ownership of the media, the public and the press, and journalism education. Students read and react to articles in professional journals and other publications. They present panel discussions and interview media professionals.

JRN 02411: Copy Editing 3 s.h.
Prerequisite(s): JRN 02205 or RTF 03295 or PR 06301
Students learn modern copy-editing skills. They use computers to edit copy and write captions and headlines. Students interview copy editors to learn more about the job. They take weekly style quizzes to sharpen their editing skills.

JRN 02420: Newspaper Laboratory 3 s.h.
Prerequisites: JRN 02310
This laboratory course teaches students to use desktop publishing equipment and modern design principles to produce a newspaper. It emphasizes interview and research techniques. Students use concepts learned in liberal arts courses to go beyond the mere facts of a story to add depth that will help readers understand issues. Students function as editors, making assignments and directing production.

JRN 02425: Advanced Publication Layout 3 s.h.
Prerequisites: JRN 02317
This course provides a thorough experience in print production through its various stages: writing, editing, layout, imposition, proofs, and printer specs. Using QuarkXPress, students build on the skills and knowledge acquired in Publication Layout and Design. They work with various page sizes, create multiple-page documents such as booklets and magazines, practice newspaper pagination, and create master pages, templates, and tables. Other topics include digital photography, manipulation of art in Photoshop, an overview of Adobe InDesign, and working with commercial printers.
## Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>READ 17100</td>
<td>Improving Personal Reading Skills</td>
<td>3 s.h.</td>
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<td>This basic skills course helps students whose reading skills need improvement in order to cope with the demands of college course work. Instruction in the full semester course emphasizes vocabulary, comprehension and study skills. This course is not counted toward graduation. It is a required course for entering students who do not pass the Rowan University Basic Skills competency requirement in Reading.</td>
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<tr>
<td>READ 30120</td>
<td>Literacies In Today’S World</td>
<td>3 s.h.</td>
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<td>This course will provide students with historical and cultural perspective of how and why people acquire and use literacy to meet personal and societal needs. By viewing literacy through different lenses students will acquire an understanding of the interrelationship of language, thought, and social practice.</td>
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<tr>
<td>READ 30280</td>
<td>Teaching Literacy</td>
<td>3 s.h.</td>
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<td>A basic understanding of the reading process and its relationship to the other language arts is the focus of this course. Topics pertaining to reading/writing instruction in grades K-12, ranging from emergent literacy to comprehension of narrative and expository discourse are covered. There is an emphasis on strategies for developing phonemic awareness, word recognition skills, fluency, vocabulary, and comprehension through various instructional settings and across all curricular areas. The importance of literature-enrichment activities and making curricular connections is highlighted. Field component is required.</td>
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<tr>
<td>READ 30319</td>
<td>Teaching Reading And Writing In The Content Area</td>
<td>3 s.h.</td>
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<td>This course helps students integrate reading and writing methods and strategies into subject matter instruction in grades K-12 ranging from emergent literacy to comprehension of narrative and expository text. There is an emphasis on strategies for developing phonemic awareness, word recognition skills, fluency, vocabulary, and comprehension through various instructional settings as well as integrating writing to learn strategies. Students acquire understanding for assessing pupil abilities, selecting suitable materials and fostering language, comprehension, and study skills needed for mastery of academic subjects. The importance of literature-enrichment activities and making curricular connections is highlighted.</td>
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<tr>
<td>READ 30320</td>
<td>Language Development, Emergent Literacy, And Reading In Young Children</td>
<td>4 s.h.</td>
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<td>Corequisites:</td>
<td>ECED 23120 Prerequisites: ECED 23221</td>
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<td>Students will gain an understanding of five phases of Literacy: Awareness and Exploration; Experimental Reading and Writing; Early Reading and Writing; Transitional Reading and Writing; Independent Reading and Writing. Students will learn how to integrate literacy across all curricula in the forms of reading, writing speaking, listening, and viewing. They will be able to identify, assess, adapt and implement a variety of strategies that take into account children with special needs. Further, students will be able to recognize the impact of cultural, linguistic, and other diversities that affect engagement in literacy learning and they will be able to identify and utilize effective teaching strategies that address these differences. This course also requires a weekly field experience in a pre-school setting.</td>
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<tr>
<td>READ 30347</td>
<td>Phonics And Spelling Instruction</td>
<td>3 s.h.</td>
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<td>Prerequisites:</td>
<td>READ 30280 or REED 30280</td>
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<td>This course prepares prospective teachers to blend evidence-based phonemic awareness, phonics, word identification, and spelling instruction strategically into an integrated language arts approach to teaching literacy. Major topics include the development of children’s phonics/spelling knowledge; what teachers should know about language; informal techniques to assess children’s early literacy, word identification, and spelling understandings; systematic and meaningfully applied instruction to meet development, cultural, and linguistic differences; and communicating with parents and professionals about phonics and/or spelling.</td>
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<tr>
<td>READ 30350</td>
<td>Using Children’S Literature In The Reading/Writing Classroom</td>
<td>3 s.h.</td>
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<td>Prerequisites:</td>
<td>REED 30280 or READ 30280</td>
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<td>This course prepares prospective teachers to integrate reading and writing in a language arts program through the use of book selections that reflect quality writing in the genres typically found in children’s literature. The course will provide students with sufficient background and knowledge in children’s literature so that they may teach reading by using trade books, emphasizing process writing and developing thematic units. Language, literacy, and learning will be enhanced by integrating children’s literature across the curriculum.</td>
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<tr>
<td>READ 30351</td>
<td>Differentiated Literacy Instruction</td>
<td>2 s.h.</td>
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<td>Prerequisite:</td>
<td>READ 30280</td>
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<td>This course prepares teacher candidates to provide differentiated literacy instruction in diverse classrooms with a wide range of developmental levels, instructional needs, interests, and backgrounds. Teacher candidates will learn how to select, administer, and analyze various assessment tools to inform instruction. Field experience is required.</td>
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</table>
READ 30421: School Reading Problems-Writing Intensive 4 s.h.
Prerequisites: COMP 01112 and READ 30347
In this course, students learn to teach struggling readers by applying their knowledge of literacy instruction learned in prerequisite coursework. They use assessments and observations to identify students' reading levels. Students are required to use on-going diagnostic teaching techniques to plan, teach, and adjust instruction according to the needs and interests of struggling learners. Process writing is used throughout. As a course requirement, students work in the Rowan Reading Clinic. Students tutor a K-12 student for 20 hours and write a final report.

READ 30451: Supervised Clinical Practice In Reading 3 s.h.
Prerequisites: READ 30421 or READ 30350
Students in this course apply diagnostic, reflective teaching procedures in order to teach struggling readers in a clinical setting. They select materials and instructional strategies that meet the specific needs of the child. Emphasis is placed on on-going, diagnostic teaching that integrates the language arts in instruction that adjusts to the needs and interests of struggling readers. Students will conduct informal reading assessments at the end of the clinic session in order to write a formal report that includes assessment data; students' strengths and needs; and recommendations to parents, classroom teachers, and future tutors for further instruction.

READ 30495: Workshop In Reading 3 s.h.
This course examines current developments related to reading instruction. It is suitable for students who have experience working in a school. Emphasis is given to effective practices related to teaching reading. Specific topics are selected by the instructor and students. Examples include: reading in vocational programs, interrelating language arts instruction, evaluating software, managing reading instruction, etc. This course may not be offered annually.

SPED 08130: Human Exceptionality 3 s.h.
This general education course is designed to develop students' awareness and understanding of the nature and needs of individuals with exceptionalities. It provides a lifespan perspective that will assist students in better understanding and, hopefully, accepting and advocating for individuals with disabilities. A field component is required.

SPED 08307: Assessing Students With Exceptional Learning Needs 3 s.h.
Prerequisites: SPED 08130
This course emphasized linking assessment with educational instruction. Prospective classroom teachers will learn how to routinely use norm-referenced instruments and criterion-referenced techniques, with an emphasis on performance assessment. Introduction to statistical factors in testing, observation of testing, and administration of selected assessment instruments will be included. Teacher candidates will also have the opportunity to develop informal assessments in conjunction with a required field experience component.

SPED 08308: Assistive Technology And Transition Planning 3 s.h.
Prerequisites: SPED 08130
This course will focus on exposing students to a variety of technologies used by and with students with exceptional learning needs. Students will gain hands-on skills in designing technology-based instructional materials for students with a wide range of exceptionalities. A focus on Universal Design for learning is at core of this course- with a goal of providing students with the ability to adapt technology, instruction, and assessment to meet a range of student needs. Exposure to adaptive and assistive technologies, as well as state-of-the-art software and hardware, is also emphasized in the course. All of this will be addressed as part of the development of Individual Educational Plans (IEPs) for students, with special emphasis on transition planning. Transition planning will address all major life transitions(e.g., early intervention to preschool; preschool to elementary; elementary to secondary; and secondary to post-secondary and work environments). A field component will be required.

SPED 08316: Differentiated Instruction In The Inclusive Classroom 2 s.h.
Prerequisites: SPED 08130
This Junior Level (300) course will focus on how the diverse needs of individuals with educational disabilities/differences can be met within the general education classroom environment. Emphasis will be on developing communication/collaboration, instructional and assessment strategies that will assist the classroom teacher in diversifying instruction to meet individual needs. A field component is required.

SPED 08330: Workshop In Special Education 3 s.h.
This course provides instruction in current issues and topics related to the field of special education which are compatible with the student's prerequisites and interest. The course can be designed to meet the in-service needs of agencies and/or local school systems. Number of credits will be determined by course content each time the course is offered. Students should consult current registration booklet for the topic and the specific number of credits to be offered.
Course Descriptions

SPED 08350: Practicum in Special Education I 1 s.h.
Corequisite(s): SPED 08360 and SPED 08307
This course serves as the field placement for SPED 08308 and SPED 08415. Students must complete the field requirements of those in a classroom that includes students with low incidence special needs.

SPED 08351: Practicum in Special Education II 1 s.h.
Corequisite(s): SPED 08308 and SPED 08415
This course serves as the field placement for SPED 08308 and SPED 08415. Students must complete the field requirements of those courses in a classroom that includes students with low incidence special needs.

SPED 08360: Positive Behavioral Support Systems For Students With Exceptional Learning Needs 3 s.h.
Prerequisite: SPED 08130
This course exposes students to a variety of theoretical approaches in behavior management of students with exceptional learning needs and how to apply those skills in classroom practices. A field component is required.

SPED 08415: Specialized Instruction For Students With Exceptional Learning Needs 3 s.h.
Prerequisites: SPED 08310 and SPED 08316 and SPED 08307
This senior-level course enhances the systematic progression of skills initiated during the earlier stages of the Teacher of Students with Disabilities Endorsement Program. The course prepares candidates to teach students with exceptional learning needs, covering instructional methods and strategies to teach self-help, motor, reading, math, language, study skills, science, and social studies. The course also emphasizes supporting students with exceptional learning needs in inclusive classrooms. There is a required field experience component with this course.

SPED 08416: Specialized Instruction For Students With Exceptional Learning Needs II (K To Grade 12) 5 s.h.
Prerequisites: SPED 08316
This senior-level course enhances the systematic progression of skills initiated during the earlier stages of the Teacher of Disabilities Program. The course prepares candidates with Subject Area Specialization to teach children from Kindergarten thru 12th grade with exceptional learning needs, covering instructional methods and strategies to teach self-help, motor, reading, math, language, study skills, science, and social studies. The course also emphasizes supporting students with exceptional learning needs in inclusive classrooms. There is a required, supervised field experience component with this course.

SPED 08445: Clinical Seminar In Special Education 1 to 2 s.h.
Prerequisites: SPED 08315
This course is designed to be taken with Clinical Practice in Special Education. The seminar will focus on three major areas within the candidate’s area of specialization, application of effective teaching research, and analysis and evaluation of the Clinical Practice experience. This course is intended to be a capstone experiences for all candidates in the Teacher of Students with Disabilities Endorsement Program.

SPED 08450: Clinical Practice In Special Education 4 s.h.
Prerequisites: SPED 08415 or SPED 08416
This is the culminating field experience for candidates in the Teacher of Students with Disabilities Endorsement Program. Clinical Practice provides candidates with full-time placement in a classroom setting that serves students with exceptional learning needs. Under University supervision and working with a clinical teacher, candidates assume full responsibility for planning, teaching, and managing a special education program during this placement. As the culminating field experience for seniors in the Teacher of Students with Disabilities Endorsement Program, Clinical Practice provides candidates with one full-time placement in a classroom setting, serving students with exceptional learning needs. Under college supervision, and working with a clinical teacher, teacher candidates assume full responsibility for planning and teaching during this placement.

SPED 19410: Cerebral Palsy: Its Individual And Community Problems 3 s.h.
Prerequisites: SPED 08526
This course presents a focus on a comprehensive multi-disciplined approach to the diagnosis and habilitation of the cerebral palsied individual. It covers the roles of the medical, psychological, therapeutic, social work and rehabilitation professions to assist teachers to provide appropriate instructional programs.
### Course Descriptions

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<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
<td>LAWJ 05116</td>
<td>Introduction To Corrections - Wi</td>
<td>3 s.h.</td>
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<td></td>
<td>This course studies the historical development of</td>
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<td>correctional practices in the handling of</td>
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<td>criminals from early to modern times. Students</td>
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<td>survey contemporary correctional organizational</td>
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<td>structures and treatment processes, as well as</td>
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<tr>
<td>LAWJ 05120</td>
<td>Introduction To Security</td>
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<td>This course presents the organization and</td>
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<td>management of the security function in industry,</td>
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<td>business, government and institutions. It also</td>
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<td>covers the protection of personnel, facilities</td>
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<td>and other assets as well as the administrative,</td>
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<td>legal and technical problems of loss prevention</td>
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<td>and control.</td>
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<tr>
<td>LAWJ 05175</td>
<td>Survey Of Criminal Justice</td>
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<td>This general education approved social science</td>
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<td>elective course deals with the nature of crime</td>
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<td>and criminal responsibility, and elements of</td>
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<td>social control. It also surveys the criminal</td>
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<td>justice process from original law enforcement</td>
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<td>contact through the judicial and correctional</td>
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<td>phases. It includes professional roles and</td>
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<td>opportunities in the criminal justice field.</td>
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<td>LAWJ 05200</td>
<td>Introduction To Corrections</td>
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<td>This course studies the historical development</td>
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<td>criminals from early to modern times. Students</td>
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<td>LAWJ 05201</td>
<td>Introduction To Courts</td>
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<td>This course covers the organization of both the</td>
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<td>state and federal court systems; the management</td>
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<td>and administration of those courts; the</td>
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<td>relationship of courts to the police,</td>
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<td>corrections, and community; the criminal trial</td>
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<td>process, including pre-trial and post-trial</td>
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<td>processes; and the judiciary and judicial power,</td>
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<td>including the areas of separation of powers and</td>
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<td>judicial behavior.</td>
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<td>LAWJ 05202</td>
<td>American Police</td>
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<td>This course covers the philosophy and history of</td>
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<td>the police role in society. It surveys</td>
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<td>organizational forms and basic procedures of</td>
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<td>police work; police ethics and professional</td>
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<td>preparation for law enforcement; and, major</td>
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<td>police problems confronting the police today.</td>
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<td>LAWJ 05205</td>
<td>Minorities, Crime And Criminal Justice</td>
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<td>In this course students critically examine the</td>
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<td>involvement of minorities with crime in the U.S.</td>
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<td>both as perpetrators and victims. Additionally,</td>
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<td>they will be afforded the opportunity to</td>
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<td>understand, critically examine, and apply</td>
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<td>significant theoretical perspectives for the</td>
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<td>study of minority criminality. They will develop</td>
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<td>an understanding of the impact of race and class</td>
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<td>within the law-making process, the content of</td>
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<td>the law, and the quality of justice afforded</td>
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<td>minorities within the American criminal justice</td>
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<td>system.</td>
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<td>LAWJ 05210</td>
<td>Restorative Justice</td>
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<td>This course surveys the major theoretical and</td>
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<td>applied concepts of Restorative and Community</td>
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<td>Justice. Students will examine how the</td>
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<td>Restorative and Community Justice processes</td>
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<td>differ from the traditional, retributive</td>
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<td>criminal justice system and how Restorative</td>
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<td>Justice models attempt to benefit the victim,</td>
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<td>offender and the community. Some of the issues</td>
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<td>to be covered are: informal justice practices,</td>
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<td>reintegrative shaming, forgiveness and</td>
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<td>resentment, and the efficacy of</td>
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<td></td>
<td>Restorative and Community Justice initiatives.</td>
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<td>Additionally, students may have</td>
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<td>opportunities to interact with adjudicated</td>
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<td>youth from New Jersey's Restorative Justice</td>
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<td>Project.</td>
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<td>LAWJ 05220</td>
<td>Victimology</td>
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<td>This course gives students insight into the</td>
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<td>&quot;forgotten&quot; party in a crime, the victim. The</td>
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<td>course covers victims' rights in the Justice</td>
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<td>System with specific coverage of the following:</td>
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<td>the social, economic and racial impacts of</td>
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<td>crime on victims; victims and courts; police</td>
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<td>reaction to victims; restitution; offender</td>
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<td>accountability and the dramatic increase in</td>
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<td>victims programs and services.</td>
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<td>LAWJ 05250</td>
<td>The Scholarship Of Criminal Justice</td>
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<td>This course is designed to augment required</td>
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<td>composition courses with a specific focus on</td>
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<td>writing within the discipline. The course is</td>
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<td>designed to prepare students to be more</td>
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<td>effective scholars in criminal justice in</td>
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<td>preparation for criminal justice research and</td>
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<td>other advanced law and justice courses.</td>
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<td>LAWJ 05255</td>
<td>Criminal Law</td>
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<td>This course offers a comprehensive review of the</td>
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<td>major common law and statutory crimes including</td>
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<td>homicide, rape and all related personal and</td>
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<td>property offenses. The students will be</td>
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<td>introduced to domestic violence offenses.</td>
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<td>Considerable attention is given to the social,</td>
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<td>moral and constitutional frameworks of the</td>
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<td>criminal law with a review of recent and</td>
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<td>standard judicial interpretations. It also offers</td>
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<td>a review of defenses and mitigation.</td>
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Course Descriptions

LAWJ 05274: Criminal Justice And Community Relations 3 s.h.
This is a broad-based course on the relationship between the community and crime and the criminal. The course covers such topical areas as police-community relationships, the culture of the inner city, human service delivery systems, the role of citizen and business groups and the criminal justice system, and the various ways in which criminal justice agencies have an obligation to the community at large.

LAWJ 05276: Parole, Probation And Community Corrections 3 s.h.
A comprehensive review of the noninstitutional response to criminal behavior, this course covers probation, parole and community corrections in depth. It includes topics like work release, education release, half-way houses, drug and alcohol centers, legal aspects of these processes and the effectiveness of these programs.

LAWJ 05285: Criminal Investigation 3 s.h.
Students study the criminal investigation process. Analysis of problems encountered in interviewing, interrogating and investigating is included. The course covers investigative techniques that may be applied to investigative problems and develops application of criminal investigation theories to the administration of justice.

LAWJ 05290: Forensic Law 3 s.h.
This class offers a comprehensive analysis of legal issues involving forensic techniques in the justice systems. This course examines the importance of admissibility, relevance and materiality as it relates to the evidence and the various experts in Forensics. The topics include bloodstain pattern and trace evidence, pathology and gunshot wounds, DNA fingerprinting, micrography, postmortem determinations and case studies in Forensic Science.

LAWJ 05305: Law And Evidence 3 s.h.
This course covers the basics principles of criminal evidence, including burdens of proof, judicial notice, presumptions, testimonial privileges and hearsay, the rule of exclusion of evidence, confessions, identifications and electronic eavesdropping; and the use of physical and demonstrative evidence including fingerprints, exhibits, photographs, documents and writings, scientific evidence and the polygraph.

LAWJ 05310: Criminal Jurisprudence 3 s.h.
Students study the history and philosophy of modern criminal law. This course covers problems of contemporary jurisprudence and especially the typology of constitutional issues as it relates to due process and its requirements.

LAWJ 05312: Criminal Procedure II 3 s.h.
This course will examine the legal procedures by which the criminal justice system operates. Students will assess United States Supreme Court opinions so as to explore issues related to the Fourth, Fifth, Sixth, Eighth, and Fourteenth Amendments to the Constitution, including pre-trial processes, speedy trial, the prosecution function, bail, the identification of suspects, the right to counsel, the adjudication process, the law of confessions and interrogation, and the privilege against compelled self-incrimination. This course has two primary objectives. The first is to introduce students to the analysis of judicial opinions, a primary source of law in the American legal system. The second is to become familiar with both the fundamental doctrines of constitutional criminal procedure and the important policy issues that emanate from there.

LAWJ 05315: Criminal Justice And Social Conflict 3 s.h.
This course covers the major crises in our basic American institutions. Students examine the various aspects of social mobility, population explosion, social stratification, sex revolution, militarism, and the generation gap as they relate to problems of social justice in our society.

LAWJ 05320: Civil Aspects Of Law Enforcement 3 s.h.
Students undertake an analysis of those areas in civil law with which law enforcement professionals frequently encounter. Topics include family law, torts, administrative and environmental issues, property disputes, liens, business and consumer transactions.

LAWJ 05322: Drugs And Crime In America 3 s.h.
This course explores and analyzes the relationship between illegal drugs and crime and all the relevant issues and ramifications. These include, but are not limited to: national and international trafficking, control of the problem, legalization, and explanations for drug use.

LAWJ 05323: Maritime Crime And Criminality 3 s.h.
The course is designed to give the students a broad survey of the myriad issues surrounding crime in the maritime environment. The course examines the macro and micro factors surrounding deviant behavior that takes place either on the seas or where the seas are a principle component to the criminal enterprise. Some of the main areas of study include, but are not limited to: contemporary and early piracy, criminal and corporate negligence within commercial shipping, admiralty law, marine pollution, illegal commercial fishing, marine insurance fraud, drug and human trafficking, and analysis of state recreational and commercial vessel laws and policies. Using policy analysis and criminological theory we explore the
underlying causes of maritime crime and policy responses to maritime crime.

LAWJ 05324: Sentencing And The Rights Of The Convicted 3 s.h.
Students explore, analyze, and critique the relevant structures, processes, and impacts of criminal sentencing and sentences. The course is designed to examine critically the relevant political, philosophical and social driving forces of change and their impacts on the system and society.

LAWJ 05325: Comparative And International Criminal Justice 3 s.h.
Prerequisites: LAWJ 05175
The course is an introduction to comparative and international criminal justice. It compares the criminal justice system in the Unit States with other national systems in the five continents and major regions of the world. Areas examined include crime, criminal law, policing, court processes, and corrections. This course also provides an introduction to the globalization of crime including terrorism, drug trafficking, human smuggling, and war crimes and the development of domestic and international efforts in fighting these crimes. The goal of this course is to help students develop comparative and international perspectives in addressing problems facing the criminal justice system.

LAWJ 05330: Problems In World Justice 3 s.h.
This multidisciplinary course examines the principles of justice and their application to the criminal justice system and society at large. Additionally, a critical examination of significant issues and concerns of world justice will be offered.

LAWJ 05335: Criminal Procedure I 3 s.h.
This course will examine the legal procedures by which the criminal justice system operates. Students will assess United States Supreme Court opinions so as to explore issues related to the Fourth Amendment to the Constitution, including search and seizure of premises and persons, the arrest and detention of suspected criminals, and the remedies available for constitutional violations. This course has two primary objectives. The first is to introduce students to the analysis of judicial opinions, a primary source of law in the American legal system. The second is to become familiar with both the fundamental doctrines of constitutional criminal procedure and the important policy issues that emanate therefrom.

LAWJ 05337: Treatment Of The Offender 3 s.h.
This course covers the major therapeutic approaches to the correction of criminal and delinquent behavior and a review of processes and procedures of corrections and of research on the outcome of various treatment approaches. Students analyze the ethical and legal problems related to rehabilitation in a correctional setting.

LAWJ 05342: Counseling And Guidance Of The Offender 3 s.h.
A survey of basic principles and techniques of counseling of offenders, this course includes interviewing, case conferences, case histories, individual and group counseling, classification procedures, and team treatment participation.

LAWJ 05346: Women, Crime And Criminal Justice 3 s.h.
This course covers the many facets of women, crime and criminal justice, including past and present trends of female crime along with its relationship to the three major components of the criminal justice system: police, courts and corrections. Furthermore, this course addresses gender as a significant variable in all aspects of society, both criminal and non-criminal.

LAWJ 05356: Criminal Justice Internship I 3 to 6 s.h.
Prerequisites: COMP 01112 or HONR 01112
This course provides practical immersion in a criminal justice-related agency for pre-service students; this course will for in-service students (law enforcement, courts and corrections personnel) involve placement in a social service related agency, or a research paper. A criminal justice related cooperative education experience may be substituted for the internship. In unusual circumstances other coursework may be substituted for the internship; this requires the approval of the department chair. (Implemented Spring 2004)

LAWJ 05357: Criminal Justice Internship II 3 s.h.
Prerequisites: COMP 01112 or HONR 01112
This course provides students with an additional opportunity to pursue practical or research experience in a criminal justice setting. Students may continue with a previously approved internship or may complete an internship in a different area of criminal justice. A criminal justice related cooperative education experience may be substituted for the internship. This course is not intended to replace Criminal Justice Internship I (SOSW05.356) but is intended to allow students additional opportunities for field experience. Students are advised to complete Criminal Justice Internship I (LAWJ05356) prior to enrolling in this course. Students are also encouraged to discuss this course with the internship coordinator prior to enrolling.
LAWJ 05361: Introduction To Juvenile Justice  3 s.h.
This course covers the history and philosophy of the juvenile justice system, which includes the development of the system through the 19th and 20th centuries and the decisions rendered by the United States Supreme Court. The student also scrutinize the various steps in the police, courts and corrections stages of the juvenile justice system.

LAWJ 05367: Theories Of Justice  3 s.h.
This course covers the nature and varieties of justice, including numerous historical perspectives on justice and the relationship between justice and society.

LAWJ 05369: Theories Of Crime And Criminality  3 s.h.
In this course students explore the extent of crime and delinquency in the United States and the full range of relevant theories of causation. They also synthesize and apply appropriate theories to such concepts and topics as race, social class, gangs, drugs, family, schools, and neighborhoods.

LAWJ 05370: Theories Of Crime And Criminality - Wi  3 s.h.
This is a writing intensive course in which students explore the extent of crime and delinquency in the United States and the full range of relevant theories of causation. They also synthesize and apply appropriate theories to such concepts and topics as race, social class, gangs, drugs, family, schools, and neighborhoods.

LAWJ 05379: The "Political Prisoner"  3 s.h.
This course examines the causes and significance of the political prisoner concept on the criminal justice system generally and the U.S. prison systems specifically. The course deals with varying perceptions of different segments of the population about the existence and scope of this phenomenon in depth.

LAWJ 05380: Criminal Justice Research  3 s.h.
Prerequisites: LAWJ 05369
Students study the basic principles of research and statistics. This course undertakes a review of contemporary criminal justice research projects, emphasizing evaluation of journal studies and basic planning and writing of the research paper.

LAWJ 05392: Criminal Justice Administration  3 s.h.
This course provides upper level students with the concepts, theories, and principles of managing and administering criminal justice organizations. The content of the course is applied to police, courts, and corrections agencies and gives the student a total system approach to the subject.

LAWJ 05393: The Incarceration Experience  3 s.h.
This course focuses on the exploration of various aspects of incarcerating criminals. It includes the history of incarceration, the prisonization process, prison subcultures, violence and victimization, and the underground prison economy.

LAWJ 05399: Crime Prevention Analysis  3 s.h.
Prerequisites: LAWJ 05175
This course will examine crime prevention strategies, emphasizing situational crime prevention approaches. We will concentrate on theories that are inextricably linked to crime prevention practices such as lifestyle, rational choice, and routine activities theories. Using a case study approach, the student will learn a variety of tools for analyzing crime patterns, developing appropriate prevention responses, and evaluating the effectiveness of the crime prevention technique employed.

LAWJ 05401: Law And Human Rights  3 s.h.
This course reviews individual civil rights and liberties in detail with a particular emphasis on federal-state legislation on discrimination, substantive and procedural due process materials and 1st amendment problems. Specific attention is given to the role police, courts and correctional systems play in the enforcement and enhancement of such rights.

LAWJ 05415: Selected Topics In Criminal Justice  3 s.h.
This course promotes intensive research and analysis in Special Topics in Criminal Justice. Students engage in either theoretical or applied research in topics that can be mutually agreed upon between faculty and student. Topics will vary but may include female criminality, XYY theory, insanity, mental health and the justice systems, advanced security systems or radical criminology.
Course Descriptions

LAWJ 05461: Seminar In Corrections-Wi 3 s.h.
Prerequisites: LAWJ 05175, LAWJ 05255, LAWJ 05380 and one of: LAWJ 05200, LAWJ 05201, or LAWJ 05202

LAWJ 05462: Seminar In Social Justice- Wi 3 s.h.
Prerequisites: LAWJ 05175, LAWJ 05255, LAWJ 05380 and one of: LAWJ 05200, LAWJ 05201, or LAWJ 05202
This seminar is a capstone experience offering in particular depth a number of special areas concerning social justice. The student will engage in class discussions, conduct research, write papers, and participate in problem solving examinations, all of which will be centered around a variety of aspects of social justice.

LAWJ 05465: Seminar In Law - Wi 3 s.h.
Prerequisites: LAWJ 05175, LAWJ 05255, LAWJ 05380 and one of: LAWJ 05200, LAWJ 05201, or LAWJ 05202
This seminar is a capstone experience offering in particular depth a number of special areas concerning law and the court system. The student will engage in class discussions, conduct research, write papers, and participate in problem solving examinations, all of which will be centered around a variety of aspects of the law/court process.

LAWJ 05467: Seminar In Law/Justice - Wi 3 s.h.
Prerequisites: LAWJ 05175, LAWJ 05255, LAWJ 05380, one of: LAWJ 05200, LAWJ 05201, or LAWJ 05202 and senior standing.
This seminar will cover topics relating to how law and justice are put into practice by the police, courts, and corrections system. Important issues affecting society and the criminal justice system as a whole will be examined in depth. Students will be expected to read scholarly work exploring these issues, participate in class discussions; conduct library research; write short, informal memos and a senior level research paper; present oral reports on their research; and demonstrate their understanding of assigned readings and the research reported by classmates in a final examination.

LAWJ 05469: Seminar In Law/Justice - Wi 3 s.h.
Prerequisites: LAWJ 05175, LAWJ 05255, LAWJ 05380 and one of: LAWJ 05200, LAWJ 05201, or LAWJ 05202
This seminar covers a wide variety of police science topics, including constitutional review and police process, investigation and forensic problems, special problems in the criminal law and its enforcement, and any other appropriate senior level topics in police studies. Students are expected to participate in a research paper, design, or project and to present oral presentations.

BUS 01105: Business Perspectives 3 s.h.
Students will explore the impact of acceleration of change and environment complexity on contemporary business organization. This course will focus on evolving (i) ethical issues, (ii) the management of technology, and (iii) impact of demographic diversity on organizations.

ENT 06100: Entrepreneurial Experiences 0 s.h.
Prerequisite: Admission to Entrepreneurship major.
This is a non-credit course that all entrepreneurship majors are enrolled in each semester. The course is graded on a Pass/No Credit basis. Each student will be required to complete a set of extracurricular activities in accordance with the entrepreneurship faculty's requirements.

ENT 06240: Entrepreneurship And Innovation 3 s.h.
Prerequisites: Junior standing, 57 credits required
This course provides a broad framework for understanding the nature of entrepreneurship in multiple organizational settings. The course introduces students to the innovation and idea generation process and helps students determine the most desirable educational path for them to achieve their career goals.

ENT 06326: Entrepreneurship And Small Business Management 3 s.h.
Prerequisites: Junior standing, 57 credits required
This course provides complete coverage of entrepreneurial models of organization and decision making. Topics include making the decision to go into business, what to expect, and the areas of small business operations (finance, purchasing, production, and sales) and management (planning, organizing, directing, and controlling). Students will develop an entrepreneurial profile of an existing entrepreneur or do a preliminary feasibility analysis for a complete business plan for a business of their choice. This course will acquaint students with the opportunities and perils of starting and managing their own firms.
**Course Descriptions**

ENT 06327: Strategic Issues In Family Business 3 s.h.
*Prerequisites: Junior standing, 57 credits required*
This course examines a new discipline that has developed in the last 10 years and focuses on the unique aspects of family business. Organizational behavior, law, finance operations, and basic small business concepts are integrated into this course. Students will have an opportunity to consult with and develop transition plans for a family firm in a live field project.

ENT 06328: Evaluating Franchising Opportunities 3 s.h.
*Prerequisites: Junior standing, 57 credits required*
This course is designed for students who are interested in learning about the opportunities and threats that abound in the modern world of franchising. Franchising is pervasive in our economy. The practice spans virtually every retail and wholesale product category. The logic of this course is that franchising is one of the development models that minimize risk for the small business, focused student. Many of these opportunities offer the chance for high incomes if the model is developed fully. Some franchising oriented people may want to start a franchise and grow it rapidly. This option is often a first step into business ownership for inexperienced owners.

ENT 06342: Financing And Legal Aspects Of Entrepreneurship 3 s.h.
*Prerequisite(s): Junior standing (completion of 57 credit hours) and ENT 06240 or permission of instructor.*
This course provides an overview of the legal and financing issues most frequently encountered by entrepreneurs and others involved in start-ups and small, closely-held, or family businesses. The course covers various aspects of financing an entrepreneurial venture. Major topics include attracting seed and growth capital from sources such as venture capital, investment banking, government, and commercial banks; creating, protecting and leveraging intellectual property. Among the issues discussed are valuing a company, going public, selling out, acquisitions, bankruptcy, different legal forms of organization, employment relationships, partnerships, and taxes.

ENT 06344: Entrepreneurial Growth Strategies 3 s.h.
*Prerequisite(s): Junior standing (completion of 57 credit hours) and ENT 06240 or permission of instructor.*
The course goal is to transform the strategic process for entrepreneurs into a growth-oriented approach. The course is organized to flow in the following manner: understanding the entrepreneurial perspective and the challenge of entrepreneurial growth, gaining an appreciation for strategic planning in emerging ventures, and finally a discussion of the emerging entrepreneurial issues confronting the economy today.

ENT 06346: Social Entrepreneurship 3 s.h.
*Prerequisites: Junior standing, 57 credits required*
The Social Entrepreneurship course provides a broad theoretical perspective and practical framework for understanding social entrepreneurs and the social ventures they create ranging from local social organizations to large international social ventures leading global change. The course introduces students to the possibilities of social entrepreneurship and an introduction to the entire social venture creation process and life cycle.

ENT 06415: Management Consulting Field Study 3 s.h.
*Prerequisites: Junior standing, 57 credits required*
This course is designed to provide education and training opportunities in the art and application of techniques from various business and non-business courses primarily to firms with under $25 million in sales. The overall purpose of the course is the acquisition of knowledge and skills that will enable students to provide consulting advice to entrepreneurs and small business owners that will be understood, accepted, implemented, and will improve the performance of the firms. The emphasis in the course is on experiential approaches that provide a participative type of learning about the crucial issues firms face.

ENT 06426: New Venture Development 3 s.h.
*Prerequisite(s): Junior standing (completion of 57 credit hours) and ENT 06240, or permission of instructor.*
This course provides an opportunity to develop a business plan for a new venture or expansion of an existing company. Students are expected to acquire skills in evaluating business ventures, learn alternative financing sources, develop ideas for differentiating products, and develop an understanding of what is required to harvest the profits in a growing business.

ENT 06450: Technology Entrepreneurship 3 s.h.
*Prerequisites: Junior standing, 57 credits required*
This course provides the student with insights into the creation, development, management, and transfer of intellectual assets. Real world product based projects will form the central core of the learning process. Students will gain an increased appreciation for the details of technology transfer and commercialization and an awareness of these critical issues from both industry and university perspectives. Examples of typical license, sponsored research, and other agreements will be provided.
HRM 06302: Management Of Human Resources 3 s.h.
Prerequisite: Junior standing, 57 credits required
This course examines the human resource management system: staffing and organization, recruitment, employee development, motivation, performance evaluation, management-labor relations, remuneration and security.

HRM 06315: Recruitment And Selection 3 s.h.
Prerequisite: HRM 06302 or PSY 08220
This course focuses on the human resource recruitment and selection functions of organizations. Topics covered include recruitment, organizational choice, validation, interviewing, and testing. Both the theoretical foundations for the recruitment and selection functions as well as the practical application of these activities are presented.

HRM 06318: Human Resource Information Systems 3 s.h.
Prerequisite: MIS 02334
This course will provide students with a working knowledge of the structure, use, and evaluation of human resource information systems.

HRM 06319: Special Topics In Human Resource Management 3 s.h.
Prerequisite: Junior standing, 57 credits required
This course presents human resource management topics related to recent development in HRM practice and research.

HRM 06420: Principles Of Training And Training Management 3 s.h.
Prerequisites: HRM 06302 or MGT 06309 or PSY 08220 or MGT 06300
This course will expose students to various theories and methodologies used to plan, design, conduct and evaluate training and management development programs in organizations. The learning experience within the course is designed to provide the student with the knowledge, information and skills required to develop and implement a training program. The course material offers a practical ‘how-to’ approach to training and development, as well as managing the training function. Each student in the course will participate in the development of a training program or module, which will be presented and critiqued at the end of the semester.

HRM 06425: Management Of Compensation 3 s.h.
Prerequisite: HRM 06302 or PSY 08220
This course will expose students to various theories and methodologies used to plan, design, conduct and evaluate training and management development programs in organizations. The learning experience within the course is designed to provide the student with the knowledge, information and skills required to develop and implement a training program. The course material offers a practical ‘how-to’ approach to training and development, as well as managing the training function. Each student in the course will participate in the development of a training program or module, which will be presented and critiqued at the end of the semester.

HRM 06401: Labor And Employee Relations 3 s.h.
Prerequisites: HRM 06302 or PSY 08220
This advanced course studies union-management relations. The course provides students with the essentials of labor law, collective bargaining, contract administration, and dispute settlement. The course uses case studies and simulations extensively.

HRM 98335: Legal Aspects Of Human Resource Management 3 s.h.
Prerequisites: MGT 98242 and MGT 06302 or HRM 06302
This course introduces students to three areas of human resources management which are extensively regulated by federal and state legislation. Legislation studied includes the Occupational Safety and Health Act (OSHA), the Equal Employment Opportunity Act (EEO), and the Employee Retirement Income Security Act (ERISA). The course emphasizes practical applications to the human resource function.

HRM 98337: Legal Aspects Of Human Resource Management (Wi) 3 s.h.
Prerequisites: MGT 98242 and (HRM 06425 and HRM 06315 with concurrent enrollment allowed) or permission of instructor
This course introduces students to three areas of human resources management which are extensively regulated by federal and state legislation. Legislation studied includes the Occupational Safety and Health Act (OSHA), the Equal Employment Opportunity Act (EEO), and the Employee Retirement Income Security Act (ERISA). The course emphasizes practical applications to the human resource function.
Course Descriptions

MGT 06123: Introductory Management Perspectives For The 21st Century 3 s.h.
Prerequisites: Freshmen enrolled in a major offered by the Department of Management and Entrepreneurship or Permission of the College
The objective of this course is to have students explore current theory, practices, and issues in management from the perspective of the management functions of planning, organizing, leading, controlling, and monitoring.

MGT 06300: Organizational Behavior 3 s.h.
Prerequisite(s): Junior standing and matriculation in the Business minor or a Business major
This course examines human relations in management. The course studies the concern for both task and process in the light of structure, goals and human relationships found in organized efforts. It also covers the application of new management theories in the areas of motivation, leadership and group problem-solving by a variety of means, including simulation, case studies, and role playing.

MGT 06304: Organizational Change And Development 3 s.h.
Prerequisites: MGT 06300 or MGT 06309 or PSY 08220
This course studies factors that facilitate or inhibit organizational change as well as research findings and theory which deal with methods for diagnosing organizational climate, and selecting and utilizing techniques for bringing about change and overcoming resistance to change. It also analyzes and evaluates roles and strategies used by change agents to initiate structure and direct organizational change.

MGT 06305: Operations Management 3 s.h.
Prerequisites: STAT 02260 and (MATH 01130 or MATH 01125 or MATH 01140)
This course provides a critical study of the operational functions of the business enterprise. Its topics include capital costs and investment criteria, plant location and layout, process planning and production design, job designs, work methods and cost controls.

MGT 06309: Organizational Behavior (Wi) 3 s.h.
Prerequisites: COMP 01112 and 57 credits required
This course examines human relations in management. The course studies the concern for both task and process in the light of structure, goals and human relationships found in organized efforts. It also covers the application of new management theories in the areas of motivation, leadership and group problem-solving by a variety of means, including simulation, case studies, and role playing.

MGT 06310: Leadership And Supervision For Managers 3 s.h.
Prerequisites: CMS 04205 and 57 credits required
The course is designed for undergraduate business students. Course content will cover the theories of business leadership and supervision- with the focus on first line supervisors. Students will focus on the theory and acquisition of various business leadership and supervisory tasks and skills necessary to work with other business managers in a global market world and to supervise workers with diverse backgrounds. These business skills will include establishing workplace goals, organizing work units for productivity, conducting interviews, giving feedback to subordinate employees, designing and implementing employee motivation programs, and supervising workteams. By the end of the course, students will be able to effectively diagnose the complex dynamics of leadership and supervision in business environments and take action as leaders and supervisors to improve individual and organization performance.

MGT 06311: Decision-Making Tools For Managers 3 s.h.
Prerequisites: MGT 06305 and 57 credits required
The course will focus on how the quality of managerial problem solving and decision-making can be enhanced by the use of business statistical tools and quantitative models. It will increase students’ knowledge of how to identify business situations which would benefit by the application of common business analytical methods and models and require that they use these methods and models to solve realistic business problems. Spreadsheet applications will be emphasized.

MGT 06312: Selected Topics In Management I 3 s.h.
Prerequisites: 45 credits required
The course will provide students with the opportunity to learn about and respond to situations which are causing changes in the current business environment. Students will collect business information about the change and analyze it, make business decisions, discuss implementation of these decisions, and modification of those decisions in these situations. Students will also have the opportunity to become thoroughly familiar with all of the business aspects of the industries in South Jersey in which most of them will be employed.
Course Descriptions

MGT 06313: Selected Topics In Management II 3 s.h.
Prerequisites: 45 credits required
The course will provide students with the opportunity to become thoroughly familiar with all of the business aspects of the industries in the local economic environment in which most of them will be employed. Students will become knowledgeable about a specific industry in the multiple business facets of accounting, finance, human resources, use of information systems, facilities, etc. Industries can include the gaming and hospitality industries, the manufacturing sector, the health-care industry.

MGT 06321: Managing Teams In Organizations 3 s.h.
Prerequisite: MGT 06300
This course is designed for undergraduate students in the Management program. Course content will cover the theories of teamwork, team development, team dynamic, team creativity, team decision making, team productivity, team communication, team performance, team evaluation, team feedback and team leadership in business. By the end of the course, students will be able to effectively diagnose the complex dynamics of team leadership in business operational environments and take action as team members and team leaders to improve industry or business organizations.

MGT 06330: Managing International Business 3 s.h.
Prerequisites: MGT 06300, ECON 04101 and ECON 04102
Students will learn about the evolution and current environment for international trade and investment and understand the challenges and issues facing business organizations with international operations. They will apply these insights to the analysis of actual business decision-making situations by means of case studies and research projects.

MGT 06354: Managerial Data Analysis 3 s.h.
Prerequisites: MATH 03125, STAT 02260 and 57 credits required
This course is designed to acquaint management students with the knowledge to collect and analyze business information from a variety of sources and under various conditions of uncertainty in order to analyze this data in order to increase the productivity and effectiveness of the businesses by which they are employed. The focus is placed upon the ability to collect relevant business data and report the findings of their analysis in order that the findings may be applied in specific business situations. The emphasis will be on the use of realistic business data, business analysis processes, business applications, and business reporting techniques.

MGT 06361: Supervised Internship 3 to 6 s.h.
Prerequisites: MGT 06300 and 57 credits required
This course includes field experience in government, business, industry or non-profit organizations. Trainees are given assignments that prepare them for productive employment upon graduation. The learning process is monitored by the College of Business faculty members.

MGT 06375: Managing Services 3 s.h.
Prerequisites: MGT 06304 and MGT 06309
This course is oriented to service industries, such as medical services, financial institutions, airlines, transportation companies and retail establishments. The course covers understanding services, designing and delivering services, managing capacity and demand, service quality, customer service, human resources in service organizations, information systems and service strategies.

MGT 06401: Independent Study - Management 1 to 6 s.h.
MGT 06402: Business Policy 3 s.h.
Prerequisites: CS 02334 or MIS 02334 and MGT 08242, MKT 09300, MGT 06300, MGT 06305, FIN 04300 and Senior Standing
This capstone course in business policy provides students with an opportunity to integrate what they have learned in separate business fields and use this knowledge in the analysis of complex business problems. There is an emphasis on the skills of identifying, analyzing and solving problems which are not pre-judged as being marketing problems, finance problems, etc. Students are encouraged to consider issues from the viewpoint of general management rather than as a functional specialist or researcher.

MGT 06404: Quality Management 3 s.h.
Prerequisites: MGT 06305 and 57 credits required
This course is designed to acquaint students with a fundamental knowledge of the principals and techniques of quality management and operational control. Emphasis will be given to systems and the function of quality, technical methods and tools used in quality management, quality improvement and problem solving, and managerial issues of quality management as a new paradigm. Practical application with actual case studies for both product- and service-oriented fields will be provided.
MGT 06405: Business Management Simulation 3 s.h.
Prerequisites: FIN 04300, MKT 09200, MGT 06310, MGT 06311, MGT 06330 and WA 01408
This course is designed to provide students with the opportunity to experience many of the problems of risk and
uncertainty that managers face when making decisions in the real world. Students work in teams while managing a computer
simulated corporation in a highly competitive international business environment. Students are challenged to use and
improve their business and leadership skills utilizing knowledge from previous business courses.

MGT 06406: Improving Business Processes 3 s.h.
Prerequisite: MGT 06305
This course introduces the fundamental Lean Six Sigma principles that underlay modern continuous improvement
approaches for industry, government and other organizations. Lean emerged from the Japanese automotive industry, and is
focused on the creation of value through the relentless elimination of waste. Six Sigma is a quality system developed at
Motorola which focuses on elimination of variation from all processes. The basic principles have been applied to a wide
range of organizations and sectors to improve quality, productivity, customer satisfaction, employee satisfaction,
time-to-market and financial performance.

MGT 06407: Business Analytics 3 s.h.
Prerequisites: MGT 06305 and MIS 02234
This course provides an introduction to the field of business analytics, which has been defined as the extensive use of
business data, analytical tools, exploratory and predictive skills, and fact-based management to drive decisions and actions.
The development and use of business analytics is discussed. This course will use Enterprise Resource Planning systems as a
platform to retrieve the data and draw meaningful information for business analytics.

MGT 06430: Business Field Research Experience 3 s.h.
Prerequisites: MGT 06305, and 75 credits required
Students will choose a business activity approved by their instructor and do an in-depth research study of that activity. It
will include library research as well as interviews with local businesses. Students will be guided by the instructor with the
help of a classroom component during which students will share their research and experience with other students.

MGT 08242: Legal Environment Of Business 3 s.h.
Students in this course examine the legal process and the legal environment within which business must operate, as well as
the interrelationship of government and business. Students develop an understanding of the methods by which legal
decisions are formulated as they affect both individual rights and business transactions.

BUS 01303: Business Practicum 3 s.h.

BUS 01401: Issues in Business: Directed Research (WI) 3 s.h.
Pre-reqs: COMP 01.111, COMP 01112, BUS 01.101 COLLEGE COMP 1 & 2 AND BUSINESS PERSPECTIVES OPEN ONLY TO LIBERAL STUDIES: HUMANITIES AND SOCIAL SCIENCES MAJORS
An upper-division course for students in Liberal Studies: Humanities & Social Sciences, Sequence B Perspectives of
Business, Issues in Business: Directed Research is a course that focuses on the current issues and trends in business as found
in the business media. The course is designed to allow students to explore areas of personal interest through the collection
of research and the presentation of such material in written and spoken formats.

MIS 02150: Integrated Business Software Tools 3 s.h.
Students will expand their use of integrated software tools that include database management systems, spreadsheets, and
other business applications. They will apply these tools to actual business decision-making situations by means of case
studies and research projects.

MIS 02210: Enterprise Resource Planning Systems Laboratory 1 s.h.
Prerequisite: MIS 02233
Students will learn the role of enterprise resource planning systems (ERPS) in supporting key business processes. There will
be hands-on computer laboratory exercises where students will gain experience in executing key business processes using a
simulated ERP environment.

MIS 02233: Principles Of Management Information Systems 3 s.h.
Prerequisite: Sophomore standing
Today, information systems are an integral part of all business activities and careers. This course is designed to introduce
students to contemporary information systems and demonstrate how these systems are used throughout organizations. The
course will focus on the key components of information systems - people, software, hardware, data, and telecommunications, and how these components can be integrated and managed to create competitive advantage. Students will also gain hands-on experience with business software tools commonly applied to business data analysis and database
management.
MIS 02234: Management Information Systems 3 s.h.
Prerequisites: 15 earned credits required and MATH 01125 or MATH 03125 or MATH 01130 or MATH 01140 or STAT 02260 or College Level Math test with minimum score 60
Information systems are an integral part of all business activities and careers. This course is designed to introduce students to contemporary information systems and demonstrate how these systems are used throughout organizations. This course focuses on the key components of information systems - organizations, people, software, hardware, data, and telecommunications - and how these components can be integrated and managed to create competitive advantage. Students will gain hands-on experience with business software tools commonly applied to business data analysis and database management. It is expected that students entering this class have completed College Algebra or its equivalent.

MIS 02310: Integrated Business Processes & Enterprise Resource Planning 3 s.h.
Prerequisites: MIS 02210 OR MIS 02234, and Junior standing, major or minor in business.
Students will learn the various key business processes, the role of enterprise resource planning systems (ERPS) in integrating and supporting these processes, and the many challenges an organization faces during implementation and management of such systems. There will be key hands-on computer laboratory exercises where students will gain experience in executing the key business steps and extracting meaningful information about the business processes using a well-regarded ERP software solution.

MIS 02320: Seminar In Management Information Systems 3 to 16 s.h.
Prerequisites: 57 credits required
A seminar course providing a broad overview of information system management technology, this course emphasizes investigation and application of state-of-the-art concepts. Topics will be relevant to current trends in the industry.

MIS 02322: Principles Of System Design 3 s.h.
Prerequisites: 57 credits required
This course explores the methodology and techniques in analysis and design of computer information systems. The systems analyst, the architect of information systems, is a liaison between user and programmer. The roles and responsibilities of the systems analyst are emphasized at all stages of the systems development life cycle.

MIS 02325: Project Management 3 s.h.
Prerequisites: 57 credits required
In this course, students will learn the Project Management Body of Knowledge (PMBOK) as put forward by the professional association, the Project Management Institute (PMI). Students will not only study the various phases and documents of project management, they will also have experience creating each of the documents for a given project.

MIS 02327: Network Management 3 s.h.
Prerequisites: 57 credits required
This course introduces students concepts associated with managing a network within a business setting. Furthermore, to solve business problems, students will apply theoretical concepts to fully design, specify, and justify networking solutions.

MIS 02330: Business Systems 3 s.h.
Prerequisites: 57 credits required
This course is designed to introduce students to business systems in general, and client-server systems in particular. Specifically, students will learn the terminology, concepts, and issues associated with the design and management of various computing architectures as well as how to develop the presentation-tier for business systems.

MIS 02332: E-Business - Information Systems Perspectives 3 s.h.
Prerequisites: 57 credits required
Students will explore the issues involved in e-business from a business, technological and societal viewpoint. Topics will include: B2C and B2B e-business models and strategies, concepts for building an effective e-business site, e-business security and encryption, e-payment systems, legal, ethical and international issues in e-commerce.

MIS 02333: E-Business - Information Systems Perspectives - Wi 3 s.h.
Prerequisites: COMP 01112 and Junior standing
Students will explore the issues involved in e-business from a business, technological and societal viewpoint. Topics will include: B2C and B2B e-business models and strategies, concepts for building an effective e-business site, e-business security and encryption, e-payment systems, legal, ethical and international issues in e-commerce.
Course Descriptions

MIS 02336: Advanced Database Management 3 s.h.
Prerequisites: MIS 02338 and Junior standing
The course provides students with an understanding of client-server databases, and the skills to develop one using a reputed database development. Students learn to use Structured Query Language (SQL) extensively to create an integrated database application. Knowledge of a programming language and a basic understanding of relational database concepts are expected.

MIS 02338: Design Of Database Systems 3 s.h.
Prerequisite: Junior standing
This course explores the fundamentals of designing a database for a business organization. It emphasizes the relational model; however, the course also explores the hierarchical and network models. Additionally, the course covers such topics as recovery, integrity, security, concurrency, distributed databases, data dictionaries and the role of the database administrator.

MIS 02344: Supervised Internship In Management Information Systems 3 s.h.
Prerequisites: 57 credits required

MIS 02428: Business Web Applications 3 s.h.
Prerequisites: MIS 02338 and MIS 02330 and MIS 02322 and completion of 87 semester hours
Students will learn how to create web pages with various types of functionality as required in the business environment. Students will create web pages to display a business’ catalog, allow customers to select and place items in a shopping cart, etc. Huban factors will be considered for all design aspects.

MIS 02450: Mis Capstone Experience 3 s.h.
Prerequisites: Senior Standing and have completed or be currently enrolled in MIS 02428 and MIS 02325 and MIS 02336
This course integrates the material covered in courses that are specific to the MIS program so that students can understand how each of the elements works together. It also affords an opportunity for students to complete a complex, realistic project where they must utilize and hone skills they learned in previous courses.

MKT 09101: Marketing And The Bus Development (Rs) 3 s.h.
Prerequisites: No more than 12 earned semester hours (freshman standing) and Admitted to the marketing major (0510) or permission of the marketing department
A required course for freshman majoring in marketing, this Rowan Seminar (RS) is designed to help students adjust to college, provides information needed to be a successful Rowan student, and introduces students to their chosen program of study. Upon completing the course, students will understand the current trends in business and scope of marketing in the modern business organizations. The course is limited to freshman students in the marketing major.

MKT 09200: Principles Of Marketing 3 s.h.
Prerequisites: COMP 01105 or COMP 01111 and 12 Credits Required
This course provides an overview of the theory and practice of marketing within a corporate and societal context in a dynamic environment. The major functions of marketing are covered from the perspective of management strategy seeking competitive advantage.

MKT 09305: Internet Marketing 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
This course examines the Internet as a tool to enhance firms' marketing activities. The course presents a customer-centric view of marketing and focuses on how firms can create or maintain relationships with their potential or existing customers. Key online and offline marketing activities to that end are also discussed.

MKT 0915: Personal Selling 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
This course examines the role of personal selling in the marketing mix. Students learn theory and gain practice in prospecting, presenting, overcoming objections, closing, and follow-up.

MKT 09330: Marketing Channels 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
This course discusses how channels can be managed strategically to serve as a competitive advantage for the firm. Key topics include power and conflict within the channel, middlemen, vertical marketing systems and managing channel members.
Course Descriptions

MKT 09350: Management Of Advertising And Promotion 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
This course explores the role of the V.P. Marketing in the development of the corporate mission statement and the translation of corporate objectives into advertising and promotion objectives, strategy and practice. The course also explores the relationship of the marketing management function to the advertising department, promotion department, market research, the advertising agency and other outside vendors.

MKT 09360: Services Marketing 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
The course provides students with an understanding of the unique characteristics of services and the application of standard marketing tools in service marketing. It emphasizes consumer decision-making, marketing planning, and development of the marketing mix. Students will apply theoretical knowledge learned in class to real world case studies and projects.

MKT 09372: Retailing 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
This course examines retailing as part of the marketing process. It emphasizes the qualitative and quantitative factors in location and merchandise selection, merchandise pricing, planning and management, as well as promotional activities. Other topics include market research, consumer behavior, organizational patterns and internal control procedures and their impact on the retail process.

MKT 09374: Research Methods In Marketing 3 s.h.
Prerequisites: MKT 09200, STAT 02260 and 57 Credits Required
This course focuses on the relevant methodologies and analytic tools that marketing researchers apply to obtain information for decision-making. Students are expected to get hands-on experience and develop proficiency in using primary and secondary sources of data.

MKT 09375: Business Logistics 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
This course focuses on the logistics of physical distribution and supply chains. Topics include traffic routing, inventory analysis and control, warehousing, location of production and storage facilities, and transportation.

MKT 09376: Consumer Behavior 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
This course analyzes both the societal norms and the internal processes which impact on the consumer's purchase decisions. How consumers process product information and make decisions is evaluated for strategic marketing implications.

MKT 09378: Product, Price, New Venture Management 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
In this course, students analyze new product development and new product management. The course covers idea screening, concept testing, new product evaluation, pricing theory and practice. Students study the use of marketing techniques, including advertising, promotion and pricing for each phase of the product life cycle.

MKT 09379: International Marketing 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
Basic marketing concepts as they relate to foreign markets are analyzed in depth in this course. Two approaches are used: the environmental approach introduces the setting in which international marketing takes place; and the managerial approach incorporates marketing strategies of firms that choose to venture abroad.

MKT 09382: Sales Force Management 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
From the viewpoint of a district manager, this course focuses on planning, directing, and controlling the marketing plan through a sales force. Topics include recruiting, selecting, training, motivating, and evaluating the sales force, as well as sales forecasting and time and territory management. Additionally, this course examines the role of personal selling in the marketing mix. Students learn theory and gain practice in prospecting, presenting, overcoming objections, closing and follow-up.
Course Descriptions

MKT 09384: Research Methods In Marketing-Wi 3 s.h.
Prerequisites: COMP 01112 and MIS 02224 and STAT 02260 and 57 Credits Required
This course focuses on the relevant methodologies and analytic tools that marketing researchers apply to obtain information for decision-making. Students are expected to get hands-on experience and develop proficiency in using primary and secondary sources of data. Writing is an essential component of the course as students will learn to present the results of their data analysis in professional and understandable written form.

MKT 09386: The Marketing Plan 3 s.h.
Prerequisites: MKT 09200 and at least 6.0 semester hours of upper division (300 or 400 level) marketing coursework
The course designed to provide students with a thorough understanding of the market planning process and the creation of the market plan. Students will be exposed to the use of market information, data analysis, and forecasting in the development of market plans. Case analysis and project-based learning will be utilized in order to provide students with hands on experience.

MKT 09387: Supply Chain Management And Logistics 3 s.h.
Prerequisites: MGT 06305
The course is designed to assist students in developing the analytical skills necessary to manage the processes and functions existent in modern supply chains. Using the Case Method, students will analyze realistic situations and problems confronting managers. They will identify solutions and develop implementation plans for their recommended solutions. Cases for analysis and discussion will include topics such as security in transportation and physical distribution, political barriers in global logistics, and information exchange across international boundaries.

MKT 09390: Selected Topics In Marketing 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
Students will investigate new areas and developments in theory, research and practice in Marketing. Specialized topics will vary each semester. Course activities will include in-depth study of current topics and preparation of case analyses and/or research papers. Students may consult with the department chair or the instructor for course details.

MKT 09391: Business To Business Marketing 3 s.h.
Prerequisites: MKT 09200 and 57 Credits Required
Students will investigate key concepts and strategic issues associated with marketing to business and organizational customers. Strategic differences between business and consumer marketing will be examined. Students will apply course concepts by means of analysis of case studies of actual decision situations.

MKT 09403: Strategic Marketing Management 3 s.h.
Prerequisite(s): 9.0 Earned Semester Hours of Upper Division Marketing Courses and 87 total Earned Semester Hours Req’d.
Students will investigate the approaches and problems of developing marketing plans and marketing decision making under conditions of uncertainty. The course focuses on the major types of decisions facing marketing executives in their attempts to harmonize the objectives and resources of the firm with the opportunities in the market place.

MKT 09406: Strategic Supply Chain Management 3 s.h.
Prerequisite: MGT 06403
This course is the capstone experience for students majoring in Business Administration with a specialization in Supply Chains and Business Systems. The course utilizes the SAP software to provide students with a real-world experience in managing supply chains and developing competitive advantage through the effective development and maintenance of logistical systems.

MKT 09411: Supervised Internship In Marketing. 3 s.h.
Prerequisite(s): 6.0 earned semester hours of upper division Marketing Courses and 60 earned semster hours required.
This course is intended to provide students with actual business experience. Fieldwork is combined with reports and online discussion sessions in the classroom. Registration in the course and prior approval from the instructor are required.

MATH 01115: Contemporary Mathematics 3 s.h.
This course is designed to develop an appreciation of what mathematics is and how it is used today. Topics covered include: statistics and probability; graphs, trees and algorithms; geometrical perspectives including transformations, symmetry, and similarity; and the mathematics of social choice. Students are expected to have completed equivalents of Basic Algebra I and Basic Skills Reading.
Course Descriptions

MATH 01122: Precalculus Mathematics  4 s.h.
This course helps prepare students for Calculus I or Calculus T&A. The contents include: a brief review of intermediate algebra, the structure of the real number system, elementary analytic geometry, and algebraic, exponential, logarithmic and trigonometric functions (including their inverses and related functions). Graphs of functions and conic sections also are studied. A graphing calculator is required. Students are expected to have completed an equivalent of Basic Algebra II.

MATH 01123: College Algebra  3 s.h.
This course is designed to help students who are weak in algebra prepare for Statistics I or Calculus Techniques & Applications. The contents include: a brief review of intermediate algebra, the structure of the real number system, elementary analytic geometry, and algebraic, exponential and logarithmic functions (including their inverses and related functions). Graphs of functions are also studied. A graphing calculator is required. Students are expected to have completed Basic Algebra II or its equivalent.

MATH 01130: Calculus I  4 s.h.
This course begins with a discussion of functions, the limit concept and continuity. The concept of a derivative is introduced and the student learns to differentiate algebraic functions, exponential, functions, logarithmic and trigonometric functions. Differentiation is applied to analysis of functions, extreme problems and to problems in related rates. The integral as the unit of a sum is linked to the antiderivative by the Fundamental Theorem of Calculus and used to find areas. A graphing calculator is required for this course, and so is the use of a computer software, such as Mathematica. Students are expected to have completed an equivalent of (Math 01.122) Precalculus.

MATH 01131: Calculus II  4 s.h.
Prerequisites: C- or better in MATH 01130
This course begins with applications of integration (such as volume of a solid of revolution work, arc length, area of a surface of revolution, center of mass) and derivatives of inverse trigonometric functions. Integration by parts, partial fractions and other more advanced integration techniques are introduced, along with a discussion of numerical integration, improper integrals, indeterminate form, sequences and infinite series. A graphing calculator is required for this course, and so is the use of computer software, such as Mathematica.

MATH 01140: Accelerated Calculus I  4 s.h.
Prerequisite: C- or better in MATH 01130
This course covers limit concept and continuity, derivative and its applications, the integral and its applications. The techniques of integration as well as numerical integrations will be discussed. Students are expected to be familiar with basic ideas of calculus. A graphing calculator is required for this course, so is the use of computer software, such as Mathematica.

MATH 01141: Accelerated Calculus II  4 s.h.
Prerequisite: C- or better in MATH 01140
This course covers sequences and infinite series, polar coordinates and parametric equations, vectors, vector functions, velocity, acceleration, partial differentiation, directional derivatives, and multiple integrations. The student is expected to use computer software, such as Mathematica, in addition to a graphing calculator.

MATH 01201: Structures Of Mathematics I  3 s.h.
Prerequisite: MATH 01095
This course is designed primarily for elementary education majors. The course concerns the development of number systems and algebraic structures, including the natural numbers, the integers, rational numbers, and real and complex numbers. Concrete examples of selected algebraic structures are included. Students will be required to reason mathematically, solve problems, and communicate mathematics effectively at different levels of formality, using a variety of representations of mathematical concepts and procedures. Use of calculators is required.

MATH 01202: Introduction To Geometry  3 s.h.
This course develops the fundamental concepts of Euclidean geometry from a modern point of view. Its topics include sets, points, lines, space, betweenness, incidence, congruence, parallelism, similarity, transformations, volumes, and areas. Non-Euclidean geometries are introduced. Not open to mathematics majors. Use of calculators is required. Students are expected to have completed an equivalent of Basic Algebra II.

MATH 01205: Technological Tools For Discovering Mathematics  2 s.h.
Prerequisites: C- or better in CS 01104 and MATH 01131 and MATH 03150
This course will use mathematics-specific technologies to help students discover mathematics and to develop a better understanding of new content. Throughout the course students will become aware of the broad range of mathematics-specific technologies available to mathematicians, become proficient in the use of these, and pursue the advantages, disadvantages, and limitations of such technologies. Students will solve problems and advance their understanding of topics in the areas of pre-calculus, calculus, geometry and statistics.
MATH 01210: Linear Algebra
Prerequisites: C- or better in MATH 0131 and (MATH 03150 or MATH 03160)
This course includes: linear equations and matrices, vector spaces, linear dependence and independence, dimension and basis of a vector space, linear transformations, inner product and cross product, orthogonality, eigenvalues and eigenvectors. Use of graphing calculators is required and computers may be used at the option of the instructor.

MATH 01230: Calculus III
Prerequisites: C- or better in MATH 0131
This course includes: vectors, vector functions, velocity, acceleration, partial differentiation, directional derivatives, multiple integration, and vector calculus. The student is expected to use computer software, such as Mathematica, in addition to the graphing calculator.

MATH 01231: Ordinary Differential Equations
Prerequisites: C- or better in both MATH 01210 and MATH 01230
Applications of ordinary differential equations and their methods of solution form the major part of this course. It also includes the solution of nth order equations, particularly of first and higher degree linear differential equations, and series and Laplace Transform solutions. Students might be asked to use computers and/or graphics calculators as an aid in solving equations.

MATH 01235: Mathematics For Engineering Analysis I
Prerequisites: MATH 0131 or MATH 0141
This course gives a comprehensive introduction to linear algebra and ordinary differential equations. It includes solving linear systems of equations, matrices, determinants, vector spaces, eigenvectors/eigenvalues, separable and exact first-order differential equations, second and higher order differential equations, and numerical methods. A computer algebra system such as Mathematica is required.

MATH 01236: Mathematics For Engineering Analysis II
Prerequisites: MATH 01235 and MATH 01230 or MATH 01141
This course is a continuation of Mathematics for Engineering Analysis I. Topics include systems of first-order ordinary differential equations, Laplace transform and partial differential equations, Fourier series, data analysis, probability and complex analysis. A computer algebra system such as Mathematica is required.

MATH 01301: Structures Of Mathematics II
Prerequisites: MATH 01201
This course is designed primarily for elementary education majors. The course will require students to investigate problems in order to deepen their conceptual and procedural understanding in the areas of data analysis, probability, geometry, measurement, systematic listing and counting, and vertex-edge graphs and algorithms. Use of calculators is required.

MATH 01310: College Geometry
Prerequisites: C- or better in PHIL 03150 and MATH 01210 and MATH 01230 and MATH 03150
This geometry course will use both synthetic and analytic approaches to study advanced concepts in Euclidean geometry, to introduce non-Euclidean geometry, to explore the basics of Transformational geometry and Higher Dimensional geometry, and to trace the historical development of geometry. Computer use will be emphasized throughout the course.

MATH 01330: Introduction To Real Analysis I
Prerequisites: C- or better in MATH 01230 and MATH 01350
This course prepares students for more advanced courses in analysis as well as introducing rigorous mathematical thought processes. Topics included are sets, functions, the real number system, sequences, limits, continuity and derivatives.

MATH 01331: Introduction To Real Analysis II
Prerequisites: C- or better in MATH 01330
This course is a continuation of Introduction to Real Analysis I. The purpose is to extend student's understanding of basic analysis and the calculus. Topics included are: the mean-value theorem, existence of the Riemann integral, Riemann-Stieltjes integration, infinite series, convergence tests and Fourier series.

MATH 01332: Numerical Analysis
Prerequisites: C- or better in CS 01104 and MATH 0131 and MATH 01210
This course includes: elements of error analysis, real roots of an equation, polynomial approximation by finite difference and least square methods, interpolation, quadrature, numerical solution of ordinary differential equations, and numerical solutions of systems of linear equations. The student should expect to program a computer in addition to using a graphing calculator.
MATH 01340: Modern Algebra I 3 s.h.
Prerequisites: C- or better in MATH 03150 and MATH 01210 and PHIL 09130
This course includes the natural numbers, integers, rationals, and reals as mathematical systems, and the introductory theory of groups, rings, integral domains, and fields. Also included are homomorphisms and isomorphisms, subgroups, kernels, rings and ideals and polynomial rings. At the option of the instructor, computer use can be required.

MATH 01341: Modern Algebra II 3 s.h.
Prerequisites: C- or better in MATH 01340
This course extends the study begun in Modern Algebra I to a more detailed investigation of abstract algebraic structures. Included are Sylow theorems, rings and ideals, polynomial rings, ring and field extension and Galois theory.

MATH 01352: Theory Of Numbers 3 s.h.
Prerequisite: C- or better in both MATH 01210 and MATH 03150 or C- or better in both MATH 01210 and MATH 01260
This course includes divisibility properties of integers, theory of congruence, Diophantine Analysis, congruences of higher degree, quadratic residues and famous problems of number theory.

MATH 01354: Introduction To Topology 3 s.h.
Prerequisites: MATH 01330
This course covers the properties of general topological spaces, separation, compactness, connectedness and the Heine-Borel and Bolzano-Weierstrass theorems.

MATH 01386: Introduction To Partial Differential Equations 3 s.h.
Prerequisites: C- or better in MATH 01210 or MATH 01236
This course is a study of partial differential equations and their applications. Topics include the derivation of the wave equation, Laplace’s equation and the heat equation, Fourier series and integrals, boundary value problems, Bessel functions and Legendre Polynomials.

MATH 01410: History Of Mathematics 3 s.h.
Prerequisites: C- or better in two 300-level (or higher) Math major courses
This course includes a survey of the development of mathematical ideas from early times up to present day college mathematics. Emphasis is on historical mathematical problems and their solution. Readings and reports on selected topics are required.

MATH 01421: Mathematics Field Experience 3 s.h.
Prerequisites: MATH 01131 and STAT 02360
Students accept assigned projects in a professional environment. These projects normally involve applied mathematics or statistics. Students are expected to work at least 150 hours during the semester for which they receive credit. Written reports are required.

MATH 01430: Introduction To Complex Analysis 3 s.h.
Prerequisites: C- or better in MATH 01330
This course includes properties of complex numbers and their conjugates, functions of a complex variable, limits, continuity and derivatives for complex functions. Also included are: Integration and the Cauchy integral theorems, uniform convergence, Taylor’s and Laurent’s series and conformal mapping.

MATH 01498: Math Seminar (Wi) 3 s.h.
Prerequisite: C- or better in each of MATH 01210, MATH 01330, MATH 0140, and either MATH 01310 or STAT 02360
This course is designed to integrate students’ knowledge of mathematics and to further develop their problem solving abilities. The course content includes problem-solving techniques, a review of the literature of mathematics, solving problems drawn from a variety of current resources, and study of techniques of proof and issues in the philosophy of mathematics and its foundation. Additionally, each student is required to write and to present orally, a research report on a mathematical topic.

MATH 03125: Calculus: Techniques And Applications 3 s.h.
Prerequisite(s): College Level Math or College Level Math Re-test with a score of 60 or higher or MATH 01123 with a minimum grade of D- or MATH 01122 with a minimum grade of D-
Introduces students to the techniques of differential and integral calculus. Emphasis is placed on practical applications of limits, derivatives, and integrals with business applications highlighted. This course also provides experience with and information about the significance and specific uses of the calculus in today’s world. A graphing calculator is required. Students are expected to have completed an equivalent of College Algebra.
MATH 03150: Discrete Mathematics
This course provides an overview of the branch of mathematics commonly known as discrete mathematics. Topics included are sets, relations, functions, induction and other methods of proof, recursion, combinatorics, graph theory, and algorithms. Emphasis is placed on the solution of problems and proofs. The use of graphing calculator is required.

MATH 03160: Discrete Structures
Prerequisites: MATH 01122 or MATH 01130
This course covers mathematical topics essential for work in computer science. This material includes number bases, mathematical induction, sets, relations, functions, congruence, recursion, combinatorics, graphs, trees, logic, Boolean algebras, and proof techniques. While this is a course in mathematics, many of the examples and applications will be taken from computer science. The instructor may require use of a graphing calculator and/or computer. This course covers much of the same material as Discrete Mathematics (MATH03.150), but with a computer science focus. In no case will a student be allowed to receive credit for both courses. Both courses will be treated as equivalent for the purposes of satisfying prerequisites and course requirements.

MATH 03305: Patterns In Nature I: Visual Geometry
Prerequisites: C- or better in each of BIOL 01105, CS 01102, CS 01200, STAT 02260, (PHYS 02150 or PHYS 00150) and CHEM 05102
This course for students in the natural/science track of the Liberal Studies major illustrates the connections between geometry and the natural sciences, using computers, manipulatives, and hands-on models. Concepts covered include properties of two- and three-dimensional shapes, transformations, dimension, and non-Euclidean geometries.

MATH 03315: Patterns In Nature II: Projects In Calculus
Prerequisites: C- or better in MATH 03305
This project-oriented course for students in the Liberal Studies Math/Science program provides an introduction to the mathematics of change. Topical coverage includes a review of functions, limits, continuity, the notion of the derivative and its applications, and the notion of integration and its applications. The use of numerical methods will be included in the context of mathematical modeling and various types of technologies, including graphing calculators, spreadsheets, and mathematical software packages will be utilized.

MATH 03400: Applications Of Mathematics
Prerequisite: C- or better in each of MATH 01210, MATH 01230, and MATH 01231
This course may include examples of mathematical models applied to the various fields of the biological, physical and social sciences. The process of building a mathematical model to describe a real world system will be demonstrated. Emphasis will be placed on the value of mathematical models for solving problems and obtaining new results. Computers and graphing calculators will be used.

MATH 03411: Deterministic Models In Operations Research
Prerequisites: C- or better in (MATH 01230 or MATH 01141) and C- or better in (MATH 01210 or MATH 01235)
This course is an introduction to mathematical modeling, analysis, and solution procedures applicable to decision-making problems in deterministic environment. Methodologies covered include the simplex and interior point methods of solving linear programming models, inventory theory, assignment and transportation problems, dynamic programming and sensitivity analysis. Solutions will be obtained using theoretical methods and software packages.

MATH 03412: Stochastic Models In Operations Research
Prerequisites: C- or better in each of STAT 02360 and MATH 03411 or C- or better in each of STAT 02360 and either MATH 01230 or MATH 01141 and either MATH 01210 or MATH 01235
This course is an introduction to mathematical modeling, analysis, and solution procedures applicable to decision-making problems in an uncertain (stochastic) environment. Methodologies covered include dynamic programming, Markov chains, queuing theory, decision trees, system reliability and inventory theory. Solutions will be obtained using theoretical methods and software packages.

STAT 02100: Elementary Statistics
This course gives a basic introduction to the fundamental concepts and methods of statistics. Its topics include: basic measures of central tendency and variability, graphical displays, elementary design of experiments, descriptive simple linear regression, elementary probability, the normal and t-distributions, confidence intervals and hypothesis testing. Use of a statistical calculator, graphing calculator or software package is required. Note: many majors require a different introductory statistics course; students should check their major requirements before signing up for this course.
STAT 02260: Statistics I 3 s.h.
Students learn to use various graphical displays and measures of location and variability to describe data. The course considers elementary probability and sampling distributions, and uses the normal and t-distributions in estimation and hypotheses testing. It includes descriptive techniques for simple linear regression and correlation. Use of a graphing calculator is required; computer software may be used. Students are expected to have completed an equivalent of College Algebra.

STAT 02261: Statistics II 3 s.h.
Prerequisites: C- or better in STAT 02260
This course is a continuation of Statistics I. Confidence intervals and hypothesis tests are studied in more detail, beginning with two sample inference for means and proportions. The inferences in simple linear regression and multiple regression are presented. Analysis of variance and experimental design are introduced. Other topics include chi-square tests for goodness-of-fit and independence, and the principles of nonparametric tests. Use of statistical software such as Minitab, SPSS or SAS, is also required.

STAT 02280: Biometry 4 s.h.
Prerequisites: MATH 01130 and BIOL 01104 and BIOL 01106 or MATH 01130 and BIOL 01202 or MATH 01130 and BIOL 01100 and BIOL 01101
This laboratory course considers elementary data analysis, probability and sampling distributions. It uses the normal and t-distributions to introduce estimation and hypotheses testing. It includes descriptive techniques and inference for simple linear regression and correlation. Analyses of variance, nonparametric tests and chisquare tests are covered in this course. Emphasis is placed on experimentation and the application of statistical methods to the biological sciences. Computer software is used regularly in data manipulation, statistical analyses, and formal presentation of results.

STAT 02284: Statistics for the Biomedical Sciences 3 s.h.
Prerequisites: MATH 01140 with a grade of C- or higher or MATH 01131 with a grade of C- or better.
This course introduces statistical concepts and analytical methods as applied to data encountered in the biomedical sciences and engineering. It emphasizes the basic concepts of experimental design, quantitative analysis of data, and statistical inference. Topics include probability theory and distributions; population parameters and their sample estimates; descriptiv statistics for central tendency and dispersion; hypothesis testing and confidence intervals for means and proportions; categorical data analysis including relative risk, odds ratios, and the chi-square statistic; correlation and simple linear regression.

STAT 02290: Probability And Statistical Inference For Computing Systems 3 s.h.
Prerequisites: MATH 03160 and MATH 01131 and (CS 04113 or CS 04112)
This course is designed to integrate students knowledge of mathematics and to further develop their problem solving abilities. The course content includes problem-solving techniques, a review of the literature of mathematics, solving problems drawn from a variety of current resources, and study of techniques of proof and issues in the philosophy of mathematics and its foundation. Additionally, each student is required to write and to present orally, a research report on a mathematical topic.

STAT 02360: Probability And Random Variables 3 s.h.
Prerequisites: C- or better in MATH 03150 and either MATH 01230 or MATH 01141
This course is an introduction to the theory and application of probability and random variables, with a short introduction to mathematical statistics, as the post-calculus level. Topics covered include sample spaces, random variables, discrete and continuous probability distributions, mathematical expectation, and multivariate distributions. At the end of the course the concept of estimation, from mathematical statistics, will be introduced. A few of the concepts of descriptive statistics will be introduced as needed. Use of a graphing calculator is required.

STAT 02361: Mathematical Statistics 3 s.h.
Prerequisites: C- or better in STAT 02260
A continuation of STAT 02.360, the course emphasizes the theory of inferential statistics and its applications. The Central Limit Theorem is more fully developed as are the concepts of estimation and hypothesis testing. The properties of estimators are covered and tests using normal, t, chi-square, and F distributions are studied. Nonparametric methods, regression, and correlation are also covered. Use of a graphing calculator is required.
STAT 02371: Design Of Experiments: Analysis Of Variance 3 s.h.
Prerequisites: STAT 02360 and MATH 01210 and (STAT 02261 or STAT 02361)
Students will gain an understanding of the major theoretical and practical concepts in the design of experiments using the statistical technique called the analysis of variance (ANOVA). A brief discussion of the concept of power, and the minimum number of experimental trials to achieve that power, will be used as this motivation for careful design. Students will be introduced to several aspects of the design of experiments beyond one- and two-way ANOVA, such as blocking, factorial designs, fractional designs, and random factors.

ENGR 01273: Strength Of Materials 3 s.h.
Prerequisite: ENGR 01271
The course presents the theory and analytical techniques used in the design and analysis of engineered structural components. The course addresses the principles of stress and strain, mechanical properties of materials, and beam and bar analysis. The study of structural components includes axial forces, torsion, bending, shear, combined loading, buckling, and design. Concepts such as principal stresses, Hooke’s Law for plane stress, and failure criteria are introduced.

ENGR 01412: Introduction To Nanotechnology 3 s.h.
Prerequisites: (PHYS 02200 OR PHYS 00220) AND (PHYS 02201 OR PHYS 00222) AND CHEM 06100
This course explores the science and engineering at the nanometer scales. Topics include fundamentals of nanotechnology; types and properties of nanomaterials; methods of fabrication; how these materials are characterized and the potential applications.

ME 10101: Introduction To Mechanical Design 3 s.h.
Prerequisites: ENGR 01291 and ENGR 01273
This course introduces the student to mechanical design process, synthesis techniques, and modern analysis tools. It focuses on synthesis of linkage and cam mechanisms. Laboratory experience will include computer simulation and analysis. Design experience will be integrated throughout the course and culminate in a design project.

ME 10211: Mechanical Engineering Laboratory 2 s.h.
This course introduces the student to many of the tools used by practicing mechanical engineers, including CAD software, mathematical modeling software, analysis software, rapid prototyping techniques and data acquisition.

ME 10301: Machine Design 4 s.h.
Prerequisites: ENGR 01291 and ENGR 01273
This course introduces students to machine design. It deals with the design and selection of machine elements such as shafts, couplings, bearings, gears, springs, screws and fasteners. Significant emphasis will be placed upon stress analysis and failure theories. Laboratory experience will include computer simulation and analysis. Design experience will be integrated throughout the curriculum and culminate in a design project.

ME 10310: Principles Of Mechanical Engineering For Ece Majors 3 s.h.
Prerequisites: (PHYS 02200 OR PHYS 00220) AND (MATH 01235 OR MATH 01231)
This course introduces Electrical and Computer Engineering students to basic concepts in statics, dynamics and the thermal/fluid sciences. Special emphasis is placed upon the design and analysis of systems relevant to electrical engineers including actuators, motors and other electromechanical devices. Heat generation and removal from electronic devices will also be given significant coverage.

ME 10321: Thermal-Fluid Sciences I 6 s.h.
Prerequisites: CHEM 06105 and MATH 01236 and PHYS 02200
This course introduces students to thermal-fluid sciences. It deals primarily with thermodynamic property relations, energy transfer, and mass, momentum, and energy balance principles. Students will be able to analyze engineering systems from a mass, momentum, and energy standpoint as well as perform heat transfer, thermodynamic, fluid static, fluid momentum, and fluid energy calculations. Laboratory experience will include computer simulation and analysis. Design experience will be integrated throughout the curriculum and culminate in a design project.

ME 10322: Thermal-Fluid Sciences II 6 s.h.
Prerequisite: ME 10321
This course advances student knowledge of the thermal-fluid sciences. It deals primarily with the second law of thermodynamics, internal/external flow, and steady flow devices. Students will be able to design systems for power production, propulsion, and heating/cooling. Design experience will be integrated throughout the curriculum and culminate in a design project.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ME 10342</td>
<td>Quality &amp; Reliability In Design And Manufacture</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: MATH 01141</td>
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<tr>
<td>This course introduces concepts of quality and reliability for application in design and manufacture. Basic aspects of dimensioning, tolerancing, and fits are introduced through application of the normal distribution and its variations. Geometric tolerances of form, orientation, position and runout are presented. Aspects of process capability and statistical process control are discussed. Concepts of failure and reliability are presented.</td>
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<tbody>
<tr>
<td>ME 10343</td>
<td>System Dynamics And Control I</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: ENGR 01291 and MATH 01236</td>
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<tr>
<td>This course introduces students to system modeling, analysis and control. The course focuses on modeling, simulation and design of mechanical, electrical, electromechanical and fluid systems. Time- and frequency-domain analysis of engineering systems will be covered.</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ME 10344</td>
<td>System Dynamics And Control II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Prerequisite: ME 10343</td>
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<td></td>
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<tr>
<td>This course introduces students to modern control systems. The course focuses on modeling, simulation and design of engineering systems with control. Time- and frequency-domain analysis of control systems will be covered. The course will culminate in a large-scale design project incorporating a modern control system.</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ME 10401</td>
<td>Introduction To Computer Integrated Manufacturing And Automation</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Prerequisites: ENGR 01283</td>
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<tr>
<td>The course covers the basic aspects of computer integrated manufacturing and automation systems. Hard and flexible automation concepts are introduced. Various automation strategies are presented. Coding and classification ideas of group technology are related to computer aided process planning. Topics of numerical control, industrial robotics, and artificial intelligence are discussed.</td>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ME 10405</td>
<td>Special Topics In Mechanical Engineering</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>This course covers special topics in individual areas of Mechanical Engineering. Specific prerequisites are determined by the nature of the course when it is announced.</td>
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<tr>
<th>Course Code</th>
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<tbody>
<tr>
<td>ME 10406</td>
<td>Introduction To Computational Materials Science</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Prerequisites: (ENGR 01283 or INTR 01486) and MATH 01236 and CS 04203</td>
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<tr>
<td>This course is intended to introduce two classes of computational simulation techniques used in materials science: molecular structure and molecular statics. In addition, emphasis is placed on the numerical methods utilized in each. Topics to be covered include molecular gelation/polymerization stimulations, basic Monte Carlo methods, use of the Lennard-Jones potential, static minimum energy unit-cell crystallographic configurations and nonlinear minimization techniques. Students should have a working knowledge of computer programming methods.</td>
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ME 10411</td>
<td>Introduction To Combustion</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisites: ME 10322</td>
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</tr>
<tr>
<td>This course serves as an introduction to combustion, chemically reacting flow systems and flames. It covers the fundamental concepts of chemically reacting systems along with many practical applications. Specific topics include chemical equilibrium, chemical kinetics, premixed laminar flames, detonations, diffusion flames and environmental issues.</td>
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<th>Course Title</th>
<th>Credits</th>
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</thead>
<tbody>
<tr>
<td>ME 10412</td>
<td>Introduction To Rocket Propulsion</td>
<td>3 s.h.</td>
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<tr>
<td>Prerequisite: ME 10322</td>
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<tr>
<td>In this course, the principles of rocket propulsion theory are presented along with practical applications of rocket propulsion design. Theoretical topics include performance analysis of ideal rocket engines, departure from ideal performance and detailed thermochemical propellant calculations. Practical design issues are addressed for both liquid propellant engines and solid rocket motors. The course also includes an introduction to electric propulsion.</td>
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<tr>
<th>Course Code</th>
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</thead>
<tbody>
<tr>
<td>ME 10413</td>
<td>Advanced Heat And Mass Transfer</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>Prerequisite: ME 10322</td>
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<td></td>
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<tr>
<td>The topics covered in this course extend and complement the Transfer Processes I course. While Transfer Processes I provides an overview and introduction to the engineering fundamentals of heat transfer, Advanced Heat Transfer will provide a deeper knowledge of heat transfer principles, and will allow more rigorous and open-ended problems to be examined. The course will include two additional topics: radiation and mass transfer. Students successfully completing this course will be able to solve a wider range of heat and mass transfer problems encountered in industry.</td>
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</tbody>
</table>
ME 10414: Introduction To Energy Conversion Systems  
**Prerequisite: ME 1022**  
This course will introduce energy conversion technologies for the generation of electrical power. Topics will include a review of power cycles, steam and gas cycles, generation of thermal power, combustion and fuels, steam power plant design considerations, gas turbine power plant operation and design considerations, combined cycles, co-generation, nuclear power, alternative energy sources, fuel cells, and environmental considerations in power generation.

ME 10421: Introduction To Gas Dynamics  
**Prerequisite: ME 1022**  
This course emphasizes application of the conservation equations of mass, momentum and energy to solve problems in one-dimensional and two-dimensional compressible flow. Specific applications of one-dimensional compressible flow include one-dimensional isentropic flow, flow with area change, adiabatic flow with friction, normal shock waves and flow with heat addition. The method of characteristics is introduced to solve two-dimensional compressible flow problems.

ME 10422: Introduction To Computational Fluid Dynamics  
**Prerequisite: ME 1022**  
This course introduces computational fluid dynamics (CFD) using a primarily software-based approach. Following an overview of the key steps involved with CFD, the class reviews the fundamental mathematics that govern fluid dynamics. An overview of governing equation discretization techniques is presented with assignments that involve building custom algorithms to solve simplified CFD problems. CFD essentials such as consistency, stability and convergence are covered in-depth. Several modeling labs are used to build software skill and explore internal and external flows that are largely incompressible and viscous. The final weeks of this class are dedicated to a final project on a student-selected topic.

ME 10441: Advanced Mechanism Design For Undergraduates  
**Prerequisites: ME 10101 and MATH 01236**  
This course presents an indepth coverage of the design of mechanisms using matrix methods as the platform to model, synthesize, analyze and simulate mechanisms. It covers advanced design techniques that include type synthesis, numerical optimization techniques as applied to mechanism design synthesis, as well as branch defects and circuit defects that occur during mechanism synthesis. In addition, it covers the modeling and simulation of mechanical systems using appropriate mechanism design software. Students will perform analysis and simulation of mechanisms.

ME 10442: Mechatronics  
**Prerequisite: ECE 09205**  
This course introduces the students to the design and development of mechatronic systems. It introduces the students to the multidisciplinary nature of mechatronic products and teaches them to design and develop such products. Students will learn about mechatronic design philosophy, mechatronic system modeling, sensors, actuators, microprocessors and their interfaces. The course project will involve the design of a real-world mechatronic system.

ME 10443: Design For X  
**Prerequisites: ENGR 01302**  
This course introduces the students to the design of systems from Design for X perspective. The Design for X course teaches how to deal with conflicting and ever increasing number of constraints in the design process. It teaches the students to adopt a systematic design approach that addresses issues related to manufacture, assembly, environment, reliability and other factors from concept design stage to product manufacture. Students also learn to customize CAD systems with their own intelligent design assistants to help them in the design process.

ME 10444: Introduction To Automotive Engineering  
**Prerequisites: ENGR 01291, ME 10101, ME 10301, ME 10322**  
This course deals with the engineering of automobiles at the undergraduate level. The course draws upon knowledge from the fields of dynamics, thermodynamics, fluid mechanics, heat transfer, and machine design. Topics covered include vehicle dynamics, internal combustion engines, power transmission, and advanced technology vehicles. The course includes appropriate exams and automobile related design project.

ME 10450: Introduction To Advanced Solid Mechanics  
**Prerequisites: ENGR 01273 and MATH 01236**  
This course will provide students with a basic understanding of the methods involved in solving problems that combine stresses, strains, and displacement in solid bodies. The course extends topics covered in the sophomore-level solid mechanic course to include derivations of well-used solutions, transformations between coordinate systems, strength, and failure used in design, and, most importantly, application of these topics to the solution of relevant problems.
ME 10451: Introduction To The Mechanics Of Continuous Media 3 s.h.
Prerequisites: ENGR 01273 and MATH 01236
The fundamental concepts governing the behavior of continuous media, primarily solids, are introduced. Governing equations are derived for classical problems such as the spinning disk. Constitutive laws are employed in the solution of boundary value problems in both Cartesian and cylindrical coordinate systems. Classical solutions are examined using symbolic mathematics and finite element software.

ME 10452: Introduction To Structural Acoustics 3 s.h.
Prerequisites: ENGR 01273 and MATH 01236
The control of noise is an important part of engineering practice in many industries today. Vital to effective noise control is an understanding of wave behavior in structures. This course will teach engineers the fundamentals of the generation of noise in structures, with an emphasis on the phenomena of mechanical resonance and modal behavior. Topics covered include vibration of strings, bars, beams and plates. An introduction to simple acoustic sources will be given.

ME 10454: Introduction To The Elastic Stability Of Structures 3 s.h.
Prerequisites: ENGR 01291 and ENGR 01272
Many important structures (e.g. buildings, bridges, aircraft frames) have buckling as a primary mode of failure. Because of this, it is important for structural engineers to have at least a cursory knowledge of elastic stability phenomena. This course will provide senior level Mechanical Engineering students with an overview of elastic stability in structures, and a brief introduction to dynamic stability, as applied to rotating shafts. Applications of mathematical theory to real-world structural design problems will be emphasized.

ME 10470: Introduction To Biomechanics 3 s.h.
Prerequisites: ENGR 01291
This course presents an introduction to biomechanics of human motion. The course will encompass the use of engineering principles to describe, analyze and assess human movement. Topics will include kinematics, kinetics, anthropometry applied to the synthesis of human movement and muscle mechanics.

ME 10471: Introduction To Biotransport 3 s.h.
Prerequisites: ME 10322
This course introduces biotransport in terms of heat transfer, mass transfer, and fluid mechanics related to the human body. Some examples include cryosurgery of warts and drug delivery from skin patches. Beginning with biotransport problem formulation, the course explores software tools that enable mathematical modeling. Fundamental principles of model validation, mesh convergence, sensitivity analysis, and objective functions are presented. Several modeling labs are used to build software skill and explore various heat and mass transfer processes inside and around the human body. Medical device development concepts are presented, making a connection between modeling activities and product development. The final weeks of this class are dedicated to a final project on a student-selected topic.

ME 10472: Introduction To Biomaterials 3 s.h.
Prerequisites: ENGR 01283
The goal of this course is to present an introduction to the numerous issues that factor into the choice of material selection for biomedical devices. Issues to be examined include mechanical properties, biocompatibility, production costs, and ease of manufacture. This course will familiarize students with relevant material issues and highlight the process for matching material performance with the desired design characteristics and functionality.

MUS 01029: Major Applied Voice 3 2 s.h.
The student must pass a departmental audition before being accepted into this course. Performance in student recitals and ensembles is required each semester. See Department Curriculum Guides for specific requirements for vocal majors.

MUS 01050: STUDENT RECITALS 0 s.h.
Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.

MUS 01051: Student Recitals 0 s.h.
Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.

MUS 01053: Student Recitals 0 s.h.
Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.
### Course Descriptions

<table>
<thead>
<tr>
<th>Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>MUS 01054</td>
<td>Student Recitals</td>
<td>0 s.h.</td>
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<tr>
<td></td>
<td>Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.</td>
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<tr>
<td>MUS 01055</td>
<td>Student Recitals</td>
<td>0 s.h.</td>
</tr>
<tr>
<td></td>
<td>Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.</td>
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<tr>
<td>MUS 01056</td>
<td>Student Recitals</td>
<td>0 s.h.</td>
</tr>
<tr>
<td></td>
<td>Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.</td>
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<tr>
<td>MUS 01057</td>
<td>Student Recitals</td>
<td>0 s.h.</td>
</tr>
<tr>
<td></td>
<td>Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.</td>
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</tr>
<tr>
<td>MUS 01101</td>
<td>Professional Applied Instrument 1</td>
<td>4 s.h.</td>
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<tr>
<td></td>
<td>An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.</td>
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<tr>
<td>MUS 01102</td>
<td>Professional Applied Instrument 2</td>
<td>4 s.h.</td>
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<tr>
<td></td>
<td>An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.</td>
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<tr>
<td>MUS 01103</td>
<td>Major Applied Instrument 1</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.</td>
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<tr>
<td>MUS 01104</td>
<td>Major Applied Instrument 2</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.</td>
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<tr>
<td>MUS 01105</td>
<td>Secondary Applied Instrument 1</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>An intensive study of one’s major instrument (for music minors) or additional instrument (for music majors) in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.</td>
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<tr>
<td>MUS 01106</td>
<td>Secondary Applied Instrument 2</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>An intensive study of one’s major instrument (for music minors) or additional instrument (for music majors) in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.</td>
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<tr>
<td>MUS 01107</td>
<td>Professional Applied Voice 1</td>
<td>4 s.h.</td>
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<tr>
<td></td>
<td>A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Vocal Performance majors only.</td>
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<tr>
<td>MUS 01108</td>
<td>Professional Applied Voice 2</td>
<td>4 s.h.</td>
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<tr>
<td></td>
<td>A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Vocal Performance majors only.</td>
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<tr>
<td>MUS 01109</td>
<td>Major Applied Voice 1</td>
<td>2 s.h.</td>
</tr>
<tr>
<td></td>
<td>A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Music Education and Bachelor of Arts in Music students only.</td>
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<tbody>
<tr>
<td>MUS 01110</td>
<td>Major Applied Voice 2</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Music Education and Bachelor of Arts in Music students only.</td>
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<tr>
<td>MUS 01111</td>
<td>Secondary Applied Voice 1</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>Weekly half hour instruction designed to develop the student’s vocal instrument. Acceptance is by audition only.</td>
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<tr>
<td>MUS 01112</td>
<td>Secondary Applied Voice 2</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>Weekly half hour instruction designed to develop the student’s vocal instrument. Acceptance is by audition only.</td>
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<tr>
<td>MUS 01113</td>
<td>Jazz Improvisation 1</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.</td>
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<tr>
<td>MUS 01114</td>
<td>Jazz Improvisation 2</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.</td>
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<tr>
<td>MUS 01115</td>
<td>Secondary Jazz Improvisation 1</td>
<td>1 s.h.</td>
</tr>
<tr>
<td></td>
<td>This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.</td>
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<tr>
<td>MUS 01116</td>
<td>Secondary Jazz Improvisation 2</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.</td>
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<tr>
<td>MUS 01129</td>
<td>Chamber Music I</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>Small groups in which the individual performer has the opportunity to develop skills under the guidance of a more skilled musician. These small groups can explore literature unique to their composite formation.</td>
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<tr>
<td>MUS 01130</td>
<td>Chamber Music II</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>Small groups in which the individual performer has the opportunity to develop skills under the guidance of a more skilled musician. These small groups can explore literature unique to their composite formation.</td>
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<tr>
<td>MUS 01131</td>
<td>Chamber Music III</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>Small groups in which the individual performer has the opportunity to develop skills under the guidance of a more skilled musician. These small groups can explore literature unique to their composite formation.</td>
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<tr>
<td>MUS 01132</td>
<td>Chamber Music IV</td>
<td>1 s.h.</td>
</tr>
<tr>
<td></td>
<td>Small groups in which the individual performer has the opportunity to develop skills under the guidance of a more skilled musician. These small groups can explore literature unique to their composite formation.</td>
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<tr>
<td>MUS 01150</td>
<td>Jazz Education Seminar</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>Jazz Education Seminar is a seminar which is repeated over four semesters. The Seminar is designed to address topics in jazz education in a group performance setting.</td>
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<tr>
<td>MUS 01201</td>
<td>Professional Applied Instrument 3</td>
<td>4 s.h.</td>
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<tr>
<td></td>
<td>An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.</td>
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<tr>
<td>MUS 01202</td>
<td>Professional Applied Instrument 4</td>
<td>4 s.h.</td>
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<tr>
<td></td>
<td>An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.</td>
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</tbody>
</table>
MUS 01203: Major Applied Instrument 3  2 s.h.
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01204: Major Applied Instrument 4  2 s.h.
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01205: Secondary Applied Instrument 3  1 s.h.
An intensive study of one's major instrument (for music minors) or additional instrument (for music majors) in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01206: Secondary Applied Instrument 4  1 s.h.
An intensive study of one's major instrument (for music minors) or additional instrument (for music majors) in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01207: Professional Applied Voice 3  4 s.h.
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Vocal Performance majors only.

MUS 01208: Professional Applied Voice 4  4 s.h.
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Vocal Performance majors only.

MUS 01209: MAJOR APPLIED VOICE 3  2 s.h.
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Music Education and Bachelor of Arts in Music students only.

MUS 01210: Major Applied Voice 4  2 s.h.
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Music Education and Bachelor of Arts in Music students only.

MUS 01211: Secondary Applied Voice 3  1 s.h.
Weekly half hour instruction designed to develop the student’s vocal instrument. Acceptance is by audition only.

MUS 01212: Secondary Applied Voice 4  1 s.h.
Weekly half hour instruction designed to develop the student’s vocal instrument. Acceptance is by audition only.

MUS 01213: Jazz Improvisation 3  2 s.h.
This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.

MUS 01214: Jazz Improvisation 4  2 s.h.
This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.

MUS 01215: Secondary Jazz Improvisation 3  1 s.h.
This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.
MUS 01216: Secondary Jazz Improvisation 4 1 s.h.
This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.

MUS 01301: Professional Applied Instrument 5 4 s.h.
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01302: Professional Applied Instrument 6 4 s.h.
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01303: Major Applied Instrument 5 2 s.h.
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01304: Major Applied Instrument 6 2 s.h.
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01305: Secondary Applied Instrument 5 1 s.h.
An intensive study of one's major instrument (for music minors) or additional instrument (for music majors) in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01306: Secondary Applied Instrument 6 1 s.h.
An intensive study of one's major instrument (for music minors) or additional instrument (for music majors) in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01307: Professional Applied Voice 5 4 s.h.
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Vocal Performance majors only.

MUS 01308: Professional Applied Voice 6 4 s.h.
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Vocal Performance majors only.

MUS 01309: Major Applied Voice 5 2 s.h.
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Music Education and Bachelor of Arts in Music students only.

MUS 01310: Major Applied Voice 6 2 s.h.
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Music Education and Bachelor of Arts in Music students only.

MUS 01311: Secondary Applied Voice 5 1 s.h.
Weekly half hour instruction designed to develop the student's vocal instrument. Acceptance is by audition only.
MUS 01312: Secondary Applied Voice 6
Weekly half hour instruction designed to develop the student's vocal instrument. Acceptance is by audition only.

MUS 01313: Jazz Improvisation 5
This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.

MUS 01314: Jazz Improvisation 6
This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.

MUS 01315: Secondary Jazz Improvisation 5
This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.

MUS 01316: Secondary Jazz Improvisation 6
This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.

MUS 01401: Professional Applied Instrument 7
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01402: Professional Applied Instrument 8
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01403: Major Applied Instrument 7
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01404: Major Applied Instrument 8
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester.

MUS 01405: Secondary Applied Instrument 7
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.

MUS 01406: Secondary Applied Instrument 8
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.

MUS 01407: Professional Applied Voice 7
A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Vocal Performance majors only.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>MUS 01408</td>
<td>PROFESSIONAL APPLIED VOICE 8</td>
<td>4 s.h.</td>
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<tr>
<td></td>
<td>A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Vocal Performance majors only.</td>
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<tr>
<td>MUS 01409</td>
<td>Major Applied Voice 7</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Music Education and Bachelor of Arts in Music students only.</td>
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</tr>
<tr>
<td>MUS 01410</td>
<td>Major Applied Voice 8</td>
<td>2 s.h.</td>
</tr>
<tr>
<td></td>
<td>A weekly hour private lesson designed to develop the vocal technique by learning the curricular vocal literature assigned for each level. Emphasis on the aspects of performance: musicality, tone quality, projection, diction, interpretation and style. For Music Education and Bachelor of Arts in Music students only.</td>
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<tr>
<td>MUS 01411</td>
<td>Secondary Applied Voice 7</td>
<td>1 s.h.</td>
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<td></td>
<td>Weekly half hour instruction designed to develop the student’s vocal instrument. Acceptance is by audition only.</td>
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<tr>
<td>MUS 01412</td>
<td>Secondary Applied Voice 8</td>
<td>1 s.h.</td>
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<td></td>
<td>Weekly half hour instruction designed to develop the student’s vocal instrument. Acceptance is by audition only.</td>
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<tr>
<td>MUS 01413</td>
<td>Jazz Improvisation 7</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.</td>
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<tr>
<td>MUS 01414</td>
<td>Jazz Improvisation 8</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>This course presents the blues scale, major, and minor scales/chords for a thorough understanding of the blues form. Students learn the fundamentals of improvisation through performance and written composition.</td>
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<tr>
<td>MUS 01415</td>
<td>Secondary Jazz Improvisation 7</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.</td>
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<tr>
<td>MUS 01416</td>
<td>Secondary Jazz Improvisation 8</td>
<td>1 s.h.</td>
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<tr>
<td></td>
<td>This graduated course presents improvisational devices, major and minor scales, chord scales, patterns, jazz harmony, solo structure and a thorough understanding of song forms. Students learn the fundamentals of improvisation through performance and written composition. Transcribing solos and learning of the jazz repertoire are mastered.</td>
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<tr>
<td>MUS 04050</td>
<td>Student Recitals</td>
<td>0 s.h.</td>
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<td></td>
<td>Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.</td>
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<tr>
<td>MUS 04110</td>
<td>Sight Singing And Ear Training</td>
<td>2 s.h.</td>
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<tr>
<td></td>
<td>The techniques of singing at sight, solfeggio, and taking dictation are reviewed and applied.</td>
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<tr>
<td>MUS 04118</td>
<td>Music Fundamentals</td>
<td>3 s.h.</td>
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<td></td>
<td>This course leads to a broader understanding of music through study of its basic elements: melody, rhythm, harmony and form.</td>
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</tr>
<tr>
<td>MUS 04121</td>
<td>Professional Applied Instrument 1</td>
<td>4 s.h.</td>
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<tr>
<td>MUS 04122</td>
<td>Professional Applied Instrument 2</td>
<td>4 s.h.</td>
</tr>
<tr>
<td>MUS 04125</td>
<td>Music Composition I</td>
<td>3 s.h.</td>
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<tr>
<td></td>
<td>A detailed study of compositional devices emphasizing the twentieth century is made. Compositions are written for available media and performed in class.</td>
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</tr>
</tbody>
</table>
Course Descriptions

MUS 04126: Music Composition II 3 s.h.
This is a continuation of Music Composition I. A detailed study of compositional devices emphasizing the twentieth century is made. Compositions are written for available media and performed in class.

MUS 04129: Jazz Improvisation 1 to 2 s.h.
This course presents the blues scale, major, and minor scales/chords for a thorough understanding of the blues form. Students learn the fundamentals of improvisation through performance and written composition.

MUS 04130: Music Theory I - Written 2 s.h.
A detailed study of the visual aspects of writing and performing music. The corresponding aural theory section must be taken concurrently. The departmental entrance exams for written and aural theory must be passed before admission to these courses. These courses must be taken in sequence.

MUS 04131: Music Theory II - Written 2 s.h.
Corequisites: MUS 04133
Prerequisites: MUS 04130 and MUS 04132 minimum Grade of C-
A detailed study of the visual aspects of writing and performing music. The corresponding aural theory section must be taken concurrently. The departmental entrance exams for written and aural theory must be passed before admission to these courses. These courses must be taken in sequence.

MUS 04132: Music Theory I - Aural 2 s.h.
A detailed study of the aural aspects of writing and performing music. The corresponding written theory section must be taken concurrently. The departmental entrance exams for written and aural theory must be passed before admission to these courses. These courses must be taken in sequence.

MUS 04133: Music Theory II - Aural 2 s.h.
Corequisites: MUS 04131
Prerequisites: MUS 04130 and MUS 04132 minimum Grade C-
A detailed study of the aural aspects of writing and performing music. The corresponding written theory section must be taken concurrently. The departmental entrance exams for written and aural theory must be passed before admission to these courses. These courses must be taken in sequence.

MUS 04140: Wind Ensemble 0 to 1 s.h.
Variable credit is given to those students who participate.

MUS 04141: String Ensemble 0 to 1 s.h.
Variable credit is given to those students who participate.

MUS 04142: College Band 0 to 1 s.h.
Variable credit is given to those students who participate.

MUS 04143: Jazz Band 0 to 1 s.h.
Variable credit is given to those students who participate.

MUS 04144: Orchestra 0 to 1 s.h.
Variable credit is given to those students who participate.

MUS 04145: Lab Band 0 to 1 s.h.
Variable credit is given to those students who participate.

MUS 04146: Concert Choir 0 to 1 s.h.
Variable credit is given to those students who participate.

MUS 04147: Contemp Music Ensemble 0 to 1 s.h.
Variable credit is given to those students who participate.

MUS 04148: Percussion Ensemble 0 to 1 s.h.
Variable credit is given to those students who participate.
MUS 04149: Guitar Ensemble  
Variable credit is given to those students who participate.

MUS 04150: Flute Ensemble  
Variable credit is given to those students who participate.

MUS 04151: Opera Company  
Variable credit is given to those students who participate.

MUS 04152: Saxophone Ensemble  
Variable credit is given to those students who participate.

MUS 04153: Clarinet Ensemble  
Variable credit is given to those students who participate.

MUS 04154: Women'S Chorus  
Variable credit is given to those students who participate.

MUS 04155: Men'S Chorus  
Variable credit is given to those students who participate.

MUS 04160: Professional Applied Instrumental: Bassoon  
1 to 4 s.h.  
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.

MUS 04161: Professional Applied Instrumental: Bass  
1 to 4 s.h.  
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.

MUS 04162: Professional Applied Instrumental: Cello  
1 to 4 s.h.  
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.

MUS 04163: Professional Applied Instrumental: Clarinet  
1 to 4 s.h.  
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.

MUS 04164: Professional Applied Instrumental: Euphonium  
1 to 4 s.h.  
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.

MUS 04165: Professional Applied Instrumental: Flute  
1 to 4 s.h.  
An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 04166</td>
<td>Professional Applied Instrumental: French Horn</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04167</td>
<td>Professional Applied Instrumental: Guitar</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04168</td>
<td>Professional Applied Instrumental: Harp</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04169</td>
<td>Professional Applied Instrumental: Oboe</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04170</td>
<td>Professional Applied Instrumental: Organ</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04171</td>
<td>Professional Applied Instrumental: Percussion</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04172</td>
<td>Professional Applied Instrumental: Piano</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04173</td>
<td>Professional Applied Instrumental: Saxophone</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04174</td>
<td>Professional Applied Trombone</td>
<td>1 to 4 s.h.</td>
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</tr>
<tr>
<td>MUS 04175</td>
<td>Professional Applied Instrumental: Trumpet</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
<tr>
<td>MUS 04176</td>
<td>Professional Applied Instrumental: Tuba</td>
<td>1 to 4 s.h.</td>
<td>An intensive study of one's major instrument in preparation for college teaching and/or concertizing professionally. The student must pass a departmental audition before being accepted into these courses. Performance in student recitals and ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument majors.</td>
</tr>
</tbody>
</table>
MUS 04177: Professional Applied Instrumental: Viola 1 to 4 s.h.
An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The
student must pass a departmental audition before being accepted into these courses. Performance in student recitals and
ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument
majors.

MUS 04178: Professional Applied Instrumental: Violin 1 to 4 s.h.
An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The
student must pass a departmental audition before being accepted into these courses. Performance in student recitals and
ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument
majors.

MUS 04179: Professional Applied Instrumental: Jazz Piano 1 to 4 s.h.
An intensive study of one’s major instrument in preparation for college teaching and/or concertizing professionally. The
student must pass a departmental audition before being accepted into these courses. Performance in student recitals and
ensembles is required each semester. See Department Music Curriculum Guides for specific requirements for instrument
majors.

MUS 04180: Applied Voice 1 to 4 s.h.
The student must pass a departmental audition before being accepted into this course. Performance in student recitals and
ensembles is required each semester. See Department Curriculum Guides for specific requirements for vocal majors.

MUS 04202: Language Through Vocal Repertoire (Italian) 1 s.h.
Study of the phonetic rules and sounds of the classical pronunciations of Italian as found in Art Song and Opera. The
International Phonetic Alphabet is utilized. Singing and class performance is required.

MUS 04203: Language Through Vocal Repertoire (French) 1 s.h.
Study of the phonetic rules and sounds of the classical pronunciations of French as found in Art Song and Opera. The
International Phonetic Alphabet is utilized. Singing and class performance is required.

MUS 04204: Language Through Vocal Repertoire (German) 1 s.h.
Study of the phonetic rules and sounds of the classical pronunciations of German as found in Art Song and Opera. The
International Phonetic Alphabet is utilized. Singing and class performance is required.

MUS 04221: Professional Applied Instrument 3 4 s.h.
MUS 04222: Professional Applied Instrument 4 4 s.h.
MUS 04225: Music Composition III 3 s.h.
This is a continuation of Music Composition II. A detailed study of compositional devices emphasizing the twentieth
century is made. Compositions are written for available media and performed in class.

MUS 04226: Music Composition IV 3 s.h.
This is a continuation of Music Composition III. A detailed study of compositional devices emphasizing the twentieth
century is made. Compositions are written for available media and performed in class.

MUS 04229: Secondary Applied Piano (Jazz) 1 s.h.
This course includes a basic approach to playing and using the piano in jazz music through an introduction to chords, chord
symbols, voicings, root movement, scales (and their relation to chords) and song melodies as played and realized by the jazz
pianist.

MUS 04230: Secondary Applied Piano II (Jazz) 1 s.h.
Emphasis is placed on learning how to "comp" and solo on the piano. A comprehensive array of advanced chords and scales
is studied, with an introduction to more complicated songs than Secondary Applied Piano I.

MUS 04240: Music Theory III - Written 2 to 4 s.h.
Corequisites: MUS 04242 Prerequisites: MUS 04131 and MUS 04133 minimum Grade C-
A detailed study of the visual aspects of writing and performing music. The corresponding aural theory section must be
taken concurrently. The departmental entrance exams for written and aural theory must be passed before admission to
these courses. These courses must be taken in sequence.
MUS 04241: Music Theory IV - Written  2 to 4 s.h.
Corequisites: MUS 04243  Prerequisites: MUS 04240 and MUS 04242 minimum Grade C-
A detailed study of the visual aspects of writing and performing music. The corresponding aural theory section must be taken concurrently. The departmental entrance exams for written and aural theory must be passed before admission to these courses. These courses must be taken in sequence.

MUS 04242: Music Theory III - Aural  2 s.h.
Corequisites: MUS 04240  Prerequisites: MUS 04131 and MUS 04133 minimum Grade C-
A detailed study of the aural aspects of writing and performing music. The corresponding written theory section must be taken concurrently. The departmental entrance exams for written and aural theory must be passed before admission to these courses. These courses must be taken in sequence.

MUS 04243: Music Theory IV - Aural  2 s.h.
Corequisites: MUS 04241  Prerequisites: MUS 04240 and MUS 04242 minimum Grade C-
A detailed study of the aural aspects of writing and performing music. The corresponding written theory section must be taken concurrently. The departmental entrance exams for written and aural theory must be passed before admission to these courses. These courses must be taken in sequence.

MUS 04309: Chamber Music I  1 s.h.
Small groups in which the individual performer has the opportunity to develop skills under the guidance of a more skilled musician. These small groups can explore literature unique to their composite formation. Courses must be taken in sequence: MUS04.309, MUS04.310, MUS04.409, and MUS04.410.

MUS 04310: Chamber Music II  1 s.h.
Small groups in which the individual performer has the opportunity to develop skills under the guidance of a more skilled musician. These small groups can explore literature unique to their composite formation. Courses must be taken in sequence: MUS04.309, MUS04.310, MUS04.409, and MUS04.410.

MUS 04321: Professional Applied Instrument 5  4 s.h.

MUS 04322: Professional Applied Instrument 6  4 s.h.

MUS 04325: Music Composition V  3 s.h.
This is a continuation of Music Composition IV. A detailed study of compositional devices emphasizing the twentieth century is made. Compositions are written for available media and performed in class.

MUS 04326: Music Composition Vi  3 s.h.
This is a continuation of Music Composition V. A detailed study of compositional devices emphasizing the twentieth century is made. Compositions are written for available media and performed in class.

MUS 04329: Junior Recital  0 s.h.
Prerequisites: MUS 04322 and MUS 04324 and MUS 97405 or MUS 04322 and MUS 04324 and MUS 97308
The Junior Recital is the recital performance culminating six semesters of applied lessons for performance majors.

MUS 04332: ACOUSTICS OF MUSIC  3 s.h.

MUS 04333: Stage Band Rehearsal Techniques  3 s.h.
For music majors only, required in the Jazz Studies and Jazz Education Program and may be elected by others. The course examines the history of big bands, interpretation and conducting for different styles and eras. Score reading, score preparations and high school level rehearsal techniques are examined.

MUS 04344: Audio Recording  3 s.h.
This course explores the techniques of audio recording. A study of equipment, microphones and microphone placement, sequencing programs and acoustics is integrated with hands-on training. Students actually record and produce finished products of recorded music or speech.

MUS 04350: Computer Technology And Music I  3 s.h.
This course focuses on the development of the student’s skills in using digital audio software to create and edit audio files, repair field recordings, mix multi-track arrangements, synchronize audio and video, and perform other creative sound design techniques. Projects in these software environments are designed to develop fundamental musicianship, creativity, and a refined aesthetic sensibility.
MUS 04351: Computer Technology And Music II
Prerequisites: MUS 04350
Computer Technology and Music II extends the skills developed in Computer Technology and Music I through work in advanced digital audio software environments. Projects include developing music for multi-media projects.

MUS 04361: Arranging For Large/Small Jazz Ensembles
Prerequisites: MUS 04241 and MUS 04243
This course provides the experience of writing for the traditional big band and jazz studio orchestra, as well as a small number of instruments. Students explore the possibilities with voicings, chord selection and compositional structures used in the aforementioned ensembles. In addition, contemporary compositional techniques are introduced to encourage the continuation of the ensembles in jazz music of the 21st century.

MUS 04363: Writing In Contemporary/Traditional Jazz Styles
Prerequisites: MUS 04217 and MUS 04305
Students explore contemporary and traditional jazz styles by listening to and analyzing the music of masters such as Chick Corea, Miles Davis, Duke Ellington, Sammy Nestico along with songs from the be-bop, hard-bop and cool eras. Students compose scores in this style for performance in class and on Department of Music jazz concerts.

MUS 04403: Choral Arranging
2 s.h.
Students explore the art of arranging songs for choral groups with or without accompaniment. Music for different choral ensembles is written, rehearsed and sung by the class.

MUS 04404: Orchestration
Prerequisites: MUS 04130, MUS 04131, MUS 04240 and MUS 04241
Characteristics of string, wind and percussion instruments (including harp) are examined through lectures and demonstrations. Transcriptions for ensembles and orchestra are made from piano music and performed in class.

MUS 04409: Chamber Music III
1 s.h.
Small groups in which the individual performer has the opportunity to develop skills under the guidance of a more skilled musician. These small groups can explore literature unique to their composite formation. Courses must be taken in sequence: MUS04.309, MUS04.310, MUS04.409, and MUS04.410.

MUS 04410: Chamber Music IV
1 s.h.
Small groups in which the individual performer has the opportunity to develop skills under the guidance of a more skilled musician. These small groups can explore literature unique to their composite formation. Courses must be taken in sequence: MUS04.309, MUS04.310, MUS04.409, and MUS04.410.

MUS 04411: Project Audio Recording
Prerequisites: MUS 04344, MUS 97105, MUS 97106, MUS 97205, MUS 97206, MUS 97305 and MUS 97306
In this course, students make a recorded project (record, television video, radio commercial, or television commercial) beginning with preliminary discussions of the project contents and culminating with actual marketing/packaging of the final product.

MUS 04421: Professional Applied Instrument 7
4 s.h.

MUS 04422: Professional Applied Instrument 8
4 s.h.

MUS 04425: Music Composition VII
3 s.h.
This is a continuation of Music Composition VI. A detailed study of compositional devices emphasizing the twentieth century is made. Compositions are written for available media and performed in class.

MUS 04426: Music Composition VIII
3 s.h.
This is a continuation of Music Composition VII. A detailed study of compositional devices emphasizing the twentieth century is made. Compositions are written for available media and performed in class.

MUS 04430: Senior Recital
0 s.h.
Prerequisites: MUS 97406 and MUS 97408 or MUS 97406 and MUS 04422 or MUS 97406 and MUS 04424
The Senior Recital is the recital performance culminating eight semesters of applied lessons for majors in the Bachelor of Music programs.
MUS 04450: Form And Analysis 3 s.h.
An in-depth study and examination of musical scores from various style periods with an emphasis on large-scale forms and structures.

MUS 04455: Counterpoint 3 s.h.
This course is a study of the principles of constructing a multilinear musical texture and the application of those principles analytically to music literature.

MUS 06356: Selected Topics In Music 3 to 9 s.h.
This is an advanced musicology course that will focus on a detailed study of a single composer, style period, or specific topic from music history. Specialized topics will vary each semester. Course activities include in-depth study of selected topics, analysis, and research.

MUS 08100: Wind Ensemble 1 s.h.
The Wind Ensemble is the university's premier wind band, performing difficult and challenging repertoire. Membership is by audition only.

MUS 08101: Wind Ensemble 1 s.h.
The Wind Ensemble is the university's premier wind band, performing difficult and challenging repertoire. Membership is by audition only.

MUS 08102: Wind Ensemble 1 s.h.
The Wind Ensemble is the university's premier wind band, performing difficult and challenging repertoire. Membership is by audition only.

MUS 08103: Wind Ensemble 1 s.h.
The Wind Ensemble is the university's premier wind band, performing difficult and challenging repertoire. Membership is by audition only.

MUS 08104: Wind Ensemble 1 s.h.
The Wind Ensemble is the university's premier wind band, performing difficult and challenging repertoire. Membership is by audition only.

MUS 08105: Wind Ensemble 1 s.h.
The Wind Ensemble is the university's premier wind band, performing difficult and challenging repertoire. Membership is by audition only.

MUS 08106: Wind Ensemble 1 s.h.
The Wind Ensemble is the university's premier wind band, performing difficult and challenging repertoire. Membership is by audition only.

MUS 08107: Wind Ensemble 1 s.h.
The Wind Ensemble is the university's premier wind band, performing difficult and challenging repertoire. Membership is by audition only.

MUS 08108: String Ensemble 1 s.h.
The String Ensemble performs a variety of chamber music repertoire.

MUS 08109: String Ensemble 1 s.h.
The String Ensemble performs a variety of chamber music repertoire.

MUS 08110: String Ensemble 1 s.h.
The String Ensemble performs a variety of chamber music repertoire.

MUS 08111: String Ensemble 1 s.h.
The String Ensemble performs a variety of chamber music repertoire.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<td>MUS 08112:</td>
<td>STRING ENSEMBLE</td>
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<td>MUS 08113:</td>
<td>String Ensemble</td>
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<td>College Band</td>
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<td>MUS 08119:</td>
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<td>MUS 08120:</td>
<td>College Band</td>
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<td>MUS 08121:</td>
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<td>MUS 08124:</td>
<td>Jazz Band</td>
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</tbody>
</table>
MUS 08131: Jazz Band
The Jazz Band performs and explores the history of the traditional and contemporary Big Band repertoire such as Duke Ellington, Count Basie, Woody Herman, Stan Kenton, Maynard Ferguson, Buddy Rich, Bob Mintzer and more.

MUS 08132: Orchestra
The Orchestra performs a wide range of symphonic orchestral repertoire and is open by audition only.

MUS 08133: Orchestra
The Orchestra performs a wide range of symphonic orchestral repertoire and is open by audition only.

MUS 08134: Orchestra
The Orchestra performs a wide range of symphonic orchestral repertoire and is open by audition only.

MUS 08135: Orchestra
The Orchestra performs a wide range of symphonic orchestral repertoire and is open by audition only.

MUS 08136: Orchestra
The Orchestra performs a wide range of symphonic orchestral repertoire and is open by audition only.

MUS 08137: Orchestra
The Orchestra performs a wide range of symphonic orchestral repertoire and is open by audition only.

MUS 08138: Orchestra
The Orchestra performs a wide range of symphonic orchestral repertoire and is open by audition only.

MUS 08139: Orchestra
The Orchestra performs a wide range of symphonic orchestral repertoire and is open by audition only.

MUS 08140: Lab Band
The Lab Band stresses improvisation, arranging, solo construction, rehearsal techniques and performance. The group stresses orchestrational versatility. Students are taught how to create a simple arrangement for the band.

MUS 08141: Lab Band
The Lab Band stresses improvisation, arranging, solo construction, rehearsal techniques and performance. The group stresses orchestrational versatility. Students are taught how to create a simple arrangement for the band.

MUS 08142: Lab Band
The Lab Band stresses improvisation, arranging, solo construction, rehearsal techniques and performance. The group stresses orchestrational versatility. Students are taught how to create a simple arrangement for the band.

MUS 08143: Lab Band
The Lab Band stresses improvisation, arranging, solo construction, rehearsal techniques and performance. The group stresses orchestrational versatility. Students are taught how to create a simple arrangement for the band.

MUS 08144: Lab Band
The Lab Band stresses improvisation, arranging, solo construction, rehearsal techniques and performance. The group stresses orchestrational versatility. Students are taught how to create a simple arrangement for the band.

MUS 08145: Lab Band
The Lab Band stresses improvisation, arranging, solo construction, rehearsal techniques and performance. The group stresses orchestrational versatility. Students are taught how to create a simple arrangement for the band.

MUS 08146: Lab Band
The Lab Band stresses improvisation, arranging, solo construction, rehearsal techniques and performance. The group stresses orchestrational versatility. Students are taught how to create a simple arrangement for the band.

MUS 08148: Concert Choir
The Concert Choir is the university’s premiere vocal ensemble. It is open by audition only and performs a wide range of historical and contemporary choral repertoire.
Course Descriptions

MUS 08149: Concert Choir 1 s.h.
The Concert Choir is the university's premiere vocal ensemble. It is open by audition only and performs a wide range of historical and contemporary choral repertoire.

MUS 08150: Concert Choir 1 s.h.
The Concert Choir is the university's premiere vocal ensemble. It is open by audition only and performs a wide range of historical and contemporary choral repertoire.

MUS 08151: Concert Choir 1 s.h.
The Concert Choir is the university's premiere vocal ensemble. It is open by audition only and performs a wide range of historical and contemporary choral repertoire.

MUS 08152: Concert Choir 1 s.h.
The Concert Choir is the university's premiere vocal ensemble. It is open by audition only and performs a wide range of historical and contemporary choral repertoire.

MUS 08153: Concert Choir 1 s.h.
The Concert Choir is the university's premiere vocal ensemble. It is open by audition only and performs a wide range of historical and contemporary choral repertoire.

MUS 08154: Concert Choir 1 s.h.
The Concert Choir is the university's premiere vocal ensemble. It is open by audition only and performs a wide range of historical and contemporary choral repertoire.

MUS 08155: Concert Choir 1 s.h.
The Concert Choir is the university's premiere vocal ensemble. It is open by audition only and performs a wide range of historical and contemporary choral repertoire.

MUS 08156: Contemporary Music Ensemble 1 s.h.
Dedicated to the performance of new music, this ensemble performs the works of Rowan composition students and other contemporary composers.

MUS 08157: Contemporary Music Ensemble 1 s.h.
Dedicated to the performance of new music, this ensemble performs the works of Rowan composition students and other contemporary composers.

MUS 08158: Contemporary Music Ensemble 1 s.h.
Dedicated to the performance of new music, this ensemble performs the works of Rowan composition students and other contemporary composers.

MUS 08159: Contemporary Music Ensemble 1 s.h.
Dedicated to the performance of new music, this ensemble performs the works of Rowan composition students and other contemporary composers.

MUS 08160: Contemporary Music Ensembles 1 s.h.
Dedicated to the performance of new music, this ensemble performs the works of Rowan composition students and other contemporary composers.

MUS 08161: Contemporary Music Ensemble 1 s.h.
Dedicated to the performance of new music, this ensemble performs the works of Rowan composition students and other contemporary composers.

MUS 08162: Contemporary Music Ensemble 1 s.h.
Dedicated to the performance of new music, this ensemble performs the works of Rowan composition students and other contemporary composers.

MUS 08163: Contemporary Music Ensemble 1 s.h.
Dedicated to the performance of new music, this ensemble performs the works of Rowan composition students and other contemporary composers.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tr>
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<td>Percussion Ensemble</td>
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<td>MUS 08165</td>
<td>Percussion Ensemble</td>
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<td>MUS 08166</td>
<td>Percussion Ensemble</td>
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<td>MUS 08167</td>
<td>Percussion Ensemble</td>
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<td>MUS 08170</td>
<td>Percussion Ensemble</td>
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<td>MUS 08171</td>
<td>Percussion Ensemble</td>
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<td>MUS 08172</td>
<td>Guitar Ensemble</td>
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<td>MUS 08180</td>
<td>Flute Ensemble</td>
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<td>MUS 08181</td>
<td>Flute Ensemble</td>
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<td>MUS 08182</td>
<td>Flute Ensemble</td>
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</table>
MUS 08183: Flute Ensemble
The Flute Ensemble explores repertoire composed for flute choir.

MUS 08184: Flute Ensemble
The Flute Ensemble explores repertoire composed for flute choir.

MUS 08185: Flute Ensemble
The Flute Ensemble explores repertoire composed for flute choir.

MUS 08186: Flute Ensemble
The Flute Ensemble explores repertoire composed for flute choir.

MUS 08187: Flute Ensemble
The Flute Ensemble explores repertoire composed for flute choir.

MUS 08188: Flute Ensemble
The Opera Company is designed to give singers the opportunity to develop and refine singing/acting skills through the study of operatic literature. Students will present the assigned literature in a staged performance at the end of the semester. Solo roles by audition. The opera chorus is open to all without audition. Previous choral experience is suggested.

MUS 08189: Opera Company
The Opera Company is designed to give singers the opportunity to develop and refine singing/acting skills through the study of operatic literature. Students will present the assigned literature in a staged performance at the end of the semester. Solo roles by audition. The opera chorus is open to all without audition. Previous choral experience is suggested.

MUS 08190: Opera Company
The Opera Company is designed to give singers the opportunity to develop and refine singing/acting skills through the study of operatic literature. Students will present the assigned literature in a staged performance at the end of the semester. Solo roles by audition. The opera chorus is open to all without audition. Previous choral experience is suggested.

MUS 08191: Opera Company
The Opera Company is designed to give singers the opportunity to develop and refine singing/acting skills through the study of operatic literature. Students will present the assigned literature in a staged performance at the end of the semester. Solo roles by audition. The opera chorus is open to all without audition. Previous choral experience is suggested.

MUS 08192: Opera Company
The Opera Company is designed to give singers the opportunity to develop and refine singing/acting skills through the study of operatic literature. Students will present the assigned literature in a staged performance at the end of the semester. Solo roles by audition. The opera chorus is open to all without audition. Previous choral experience is suggested.

MUS 08193: Opera Company
The Opera Company is designed to give singers the opportunity to develop and refine singing/acting skills through the study of operatic literature. Students will present the assigned literature in a staged performance at the end of the semester. Solo roles by audition. The opera chorus is open to all without audition. Previous choral experience is suggested.

MUS 08195: OPERA COMPANY
The Opera Company is designed to give singers the opportunity to develop and refine singing/acting skills through the study of operatic literature. Students will present the assigned literature in a staged performance at the end of the semester. Solo roles by audition. The opera chorus is open to all without audition. Previous choral experience is suggested.

MUS 08196: Saxophone Ensemble
The Saxophone Ensemble performs classical and jazz repertoire written for saxophone quartet, quintet and choir.

MUS 08197: Saxophone Ensemble
The Saxophone Ensemble performs classical and jazz repertoire written for saxophone quartet, quintet and choir.

MUS 08198: Saxophone Ensemble
The Saxophone Ensemble performs classical and jazz repertoire written for saxophone quartet, quintet and choir.
Course Descriptions

MUS 08199: Saxophone Ensemble
The Saxophone Ensemble performs classical and jazz repertoire written for saxophone quartet, quintet and choir. 1 s.h.

MUS 08200: Saxophone Ensemble
The Saxophone Ensemble performs classical and jazz repertoire written for saxophone quartet, quintet and choir. 1 s.h.

MUS 08201: Saxophone Ensemble
The Saxophone Ensemble performs classical and jazz repertoire written for saxophone quartet, quintet and choir. 1 s.h.

MUS 08202: Saxophone Ensemble
The Saxophone Ensemble performs classical and jazz repertoire written for saxophone quartet, quintet and choir. 1 s.h.

MUS 08203: Saxophone Ensemble
The Saxophone Ensemble performs classical and jazz repertoire written for saxophone quartet, quintet and choir. 1 s.h.

MUS 08204: Clarinet Ensemble
The Clarinet Ensemble explores and performs clarinet choir repertoire. 1 s.h.

MUS 08205: Clarinet Ensemble
The Clarinet Choir explores and performs clarinet choir repertoire. 1 s.h.

MUS 08206: Clarinet Ensemble
The Clarinet Choir explores and performs clarinet choir repertoire. 1 s.h.

MUS 08207: Clarinet Ensemble
The Clarinet Choir explores and performs clarinet choir repertoire. 1 s.h.

MUS 08208: Clarinet Ensemble
The Clarinet Choir explores and performs clarinet choir repertoire. 1 s.h.

MUS 08209: Clarinet Ensemble
The Clarinet Choir explores and performs clarinet choir repertoire. 1 s.h.

MUS 08210: Clarinet Ensemble
The Clarinet Choir explores and performs clarinet choir repertoire. 1 s.h.

MUS 08211: Women’S Chorus
The Women’s Choir is open to all who wish to participate and perfroms high quality music written for women’s voices. 1 s.h.

MUS 08212: Women’S Chorus
The Women’s Choir is open to all who wish to participate and perfroms high quality music written for women’s voices. 1 s.h.

MUS 08214: Women’S Chorus
The Women’s Choir is open to all who wish to participate and perfroms high quality music written for women’s voices. 1 s.h.

MUS 08215: Women’S Chorus
The Women’s Choir is open to all who wish to participate and perfroms high quality music written for women’s voices. 1 s.h.

MUS 08216: Women’S Chorus
The Women’s Choir is open to all who wish to participate and perfroms high quality music written for women’s voices. 1 s.h.

MUS 08217: Women’S Chorus
The Women’s Choir is open to all who wish to participate and perfroms high quality music written for women’s voices. 1 s.h.

MUS 08218: Women’S Chorus
The Women’s Choir is open to all who wish to participate and perfroms high quality music written for women’s voices. 1 s.h.
Course Descriptions

MUS 08219: Men's Chorus
The Men's Choir is open to all who wish to participate and performs high quality music written for men's voices.

MUS 08220: Men's Chorus
The Men's Choir is open to all who wish to participate and performs high quality music written for men's voices.

MUS 08221: Men's Chorus
The Men's Choir is open to all who wish to participate and performs high quality music written for men's voices.

MUS 08222: Men's Chorus
The Men's Choir is open to all who wish to participate and performs high quality music written for men's voices.

MUS 08223: Men's Chorus
The Men's Choir is open to all who wish to participate and performs high quality music written for men's voices.

MUS 08224: Men's Chorus
The Men's Choir is open to all who wish to participate and performs high quality music written for men's voices.

MUS 08225: Men's Chorus
The Men's Choir is open to all who wish to participate and performs high quality music written for men's voices.

MUS 08226: Men's Chorus
The Men's Choir is open to all who wish to participate and performs high quality music written for men's voices.

MUS 32218: Vocal Pedagogy
Prerequisites: MUS 04130 and MUS 04131
Basic principles and techniques of training the solo voice are addressed in this course. A survey of the history of vocal pedagogy, the anatomy of the voice and resource materials for teaching voices of all ages included. Students will experience practical training in teaching voice through class demonstration. Recommended for vocal majors at junior level and above.

MUS 32219: Piano Pedagogy
Method books for beginners and elementary students are examined and compared. The pedagogy of piano technique and interpretation is emphasized. Must be preceded by freshman and sophomore piano class or waiver of these requirements. This course may not be offered annually.

MUS 32335: Business Of Music
Prerequisite: Junior level
The student will be able to learn about the commercial aspects of the music business; introduces music students to music publishing, music copyright laws, music licensing, artist management, recording industry, music in advertising, etc. Field trips play a very important role in the development of this course. Finally, the student will be made aware of careers in music other than music education and performance.

MUS 97100: Piano Class I
Instruction is given in classes including sight reading, improvising, and playing by ear. These courses must be taken in sequence, simultaneously with or after the indicated theory courses: Piano Class I (MUS97.100) with or after Written Theory I (MUS97.100); Piano Class II (MUS97.101) with or after Written Theory II (MUS04.131); Piano Class III (MUS97.200) with or after Written Theory III (MUS04.240), and Piano Class IV (MUS97.241) with or after Written Theory IV (MUS04.217). Not open to non-music majors.

MUS 97101: Piano Class II
Prerequisites: MUS 97100
Instruction is given in classes including sight reading, improvising, and playing by ear. These courses must be taken in sequence, simultaneously with or after the indicated theory courses: Piano Class I (MUS97.100) with or after Written Theory I (MUS97.100); Piano Class II (MUS97.101) with or after Written Theory II (MUS04.131); Piano Class III (MUS97.200) with or after Written Theory III (MUS04.240), and Piano Class IV (MUS97.241) with or after Written Theory IV (MUS97.241). Not open to non-music majors.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>MUS 97102:</td>
<td>Piano I For Non-Music Majors</td>
<td>3 s.h.</td>
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<tr>
<td>For Non-Music Majors</td>
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<tr>
<td>Beginning piano taught in a class. No previous experience in music is necessary. For Non-Music Majors.</td>
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<tr>
<td>MUS 97103:</td>
<td>Piano II For Non-Music Majors</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>MUS 97111:</td>
<td>String Class-Low</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>The fundamentals of cello and bass are studied.</td>
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<tr>
<td>MUS 97112:</td>
<td>String Class-High</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>Fingering and bowing patterns, tone production, tuning, methods and materials are studied for the violin and viola.</td>
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</tr>
<tr>
<td>MUS 97114:</td>
<td>Secondary Applied Instrument 1</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>MUS 97115:</td>
<td>Secondary Applied Instrument 2</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>MUS 97200:</td>
<td>Piano Class III</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>Prerequisites: MUS 97101</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Instruction is given in classes including sight reading, Improvising, and playing by ear. These courses must be taken in sequence, simultaneously with or after the indicated theory courses: Piano Class I (MUS97.100) with or after Written Theory I (MUS04.130); Piano Class II (MUS97.101) with or after Written Theory II (MUS04.131); Piano Class III (MUS97.200) with or after Written Theory III (MUS04.240), and Piano Class IV (MUS97.241) with or after Written Theory IV (MUS04.217). Not open to non-music majors.</td>
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<tr>
<td>MUS 97201:</td>
<td>Piano Class IV</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>Prerequisites: MUS 97200</td>
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<td></td>
</tr>
<tr>
<td>Instruction is given in classes including sight reading, Improvising, and playing by ear. These courses must be taken in sequence, simultaneously with or after the indicated theory courses: Piano Class I (MUS97.100) with or after Written Theory I (MUS04.130); Piano Class II (MUS97.101) with or after Written Theory II (MUS04.131); Piano Class III (MUS97.200) with or after Written Theory III (MUS04.240), and Piano Class IV (MUS97.241) with or after Written Theory IV (MUS04.217). Not open to non-music majors.</td>
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<tr>
<td>MUS 97212:</td>
<td>Conducting-Instrumental I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>This course demonstrates and rehearses the skills of instrumental conducting through music for instrumental ensembles.</td>
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<tr>
<td>MUS 97213:</td>
<td>Conducting-Choral I</td>
<td>2 s.h.</td>
</tr>
<tr>
<td>This course is an introduction to the art of choral conducting. Gestural techniques, (preparation, pattern, cues, releases, fermata, expression, and left-hand independence), are developed through class participation and other ensemble situations.</td>
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</tr>
<tr>
<td>MUS 97228:</td>
<td>Classroom Guitar</td>
<td>1 s.h.</td>
</tr>
<tr>
<td>This course is designed to enable classroom teachers to utilize and instruct basic guitar techniques with an emphasis on accompaniment skills.</td>
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<tr>
<td>MUS 97229:</td>
<td>Guitar Class I</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>A study of the guitar performance and a study of the materials available.</td>
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<tr>
<td>MUS 97230:</td>
<td>Guitar Class II</td>
<td>3 s.h.</td>
</tr>
<tr>
<td>A continuation of the study of the guitar through performance and a study of the materials available.</td>
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<tr>
<td>MUS 97300:</td>
<td>French Horn Class</td>
<td>.5 s.h.</td>
</tr>
<tr>
<td>Designed for Music Education majors, this course addresses horn pedagogy and basic horn performance.</td>
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<tr>
<td>MUS 97301:</td>
<td>Trombone Class</td>
<td>.5 s.h.</td>
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<tr>
<td>Designed for Music Education majors, this course addresses trombone pedagogy and basic trombone performance.</td>
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<tr>
<td>MUS 97302:</td>
<td>Percussion Class</td>
<td>1 s.h.</td>
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<tr>
<td>A study of rudimental and ensemble techniques of snare drum, timpani, bass drum, cymbals and accessory instruments.</td>
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</tbody>
</table>
MUS 97309: Trumpet Class
Designed for Music Education majors, this course addresses trumpet pedagogy and basic trumpet performance.

MUS 97310: Tuba Class
Designed for Music Education majors, this course addresses tuba pedagogy and basic tuba performance.

MUS 97312: Conducting-Instrumental II
Prerequisites: MUS 97212
This course demonstrates and rehearses the skills of instrumental conducting through music for instrumental ensembles.

MUS 97313: Conducting-Choral II
Prerequisites: MUS 97213
Students apply basic conducting techniques to repertoire spanning each of the major time periods. In addition to gesture, great emphasis is given to score reading and score analysis skills.

MUS 97400: Voice Class
A study of the basic principles of singing taught in a group setting. Students will learn beginners breathing technique, tone placement and projection through the singing of group and solo repertoire. Course is open to non-music majors.

MUS 97401: Bassoon Class
This course teaches the fundamentals of the bassoon.

MUS 97402: Clarinet Class
Designed for Music Education majors, this course addresses clarinet pedagogy and basic clarinet performance.

MUS 97403: Saxophone Class
Designed for Music Education majors, this course addresses saxophone pedagogy and basic saxophone performance.

MUS 97404: Reedmaking And Instrument Repair
The fundamentals of reedmaking and repair of instruments are studied.

MUS 97409: Flute Class
Designed for Music Education majors, this course addresses flute pedagogy and basic flute performance.

MUS 97410: Oboe Class
Designed for Music Education majors, this course addresses oboe pedagogy and basic oboe performance.

MUSG 06100: Signals, Systems And Music
This course is an introduction to the analysis and creative production of electronic music. The student will experience music using the principles of music theory, electronic signal analysis and system development. Both lecture and laboratory sessions are presented culminating in the development and production of electronic music using recorded sound, software generated signals and electronically produced signals.

MUSG 06102: General Music History
An introduction to styles and analysis of music through a historical overview. The techniques of listening and aural analysis of representative works serves as exercise material for the course.

MUSG 06109: Music Appreciation
Music literature is approached through recordings, live performance and appropriate reading.

MUSG 06114: Growth And Development Of Jazz
African and European influences, the evolution of jazz styles and the influence of jazz on the musical world are covered.

MUSG 06117: Expressing Music Through Technology
The elements of music and the development of classical, jazz, and popular musics are studied through hands-on technology-based activities. No prior musical or technology experience is necessary.
MUSG 06120: Keyboard Literature 3 s.h.
The course is a survey of the important compositions written for keyboard instruments, primarily piano, from ca. 1600 to the present. This course may not be offered annually.

MUSG 06210: Vocal Literature 3 s.h.
A survey of solo vocal literature through these vocal periods: Renaissance, Baroque, Classical, Romantic, Late Romantic and Contemporary. Through lecture, demonstration and presentation, students will study the composers of each period, their body of work, style, interpretation and performance practice.

MUSG 06211: Brass And Woodwind Literature 3 s.h.
Brass and woodwind literature informs the music students of the availability of the following brass and woodwind materials: methods and studies, ensemble literature, solos, books, periodicals and recordings. This course may not be offered annually.

MUSG 06214: Development Of Musical Styles And Form I 3 s.h.
The principle forms and styles of music and their place in the history of Western Civilization from ancient times through the Renaissance are studied.

MUSG 06215: Development Of Musical Styles And Form II 3 s.h.
A continuation of Development of Musical Styles and Forms I from the Baroque era through Impressionism.

MUSG 06220: The Singing Music Of African-Americans 3 s.h.
This course will be an investigation of the singing music tradition of the music of African-Americans, featuring music from the earliest field songs and spirituals, through the latest blues, gospel, jazz, pop, rap, and crossover genres. It will provide insight into the social, political, and religious institutions of African-Americans as these institutions influenced the development of music. The course builds on a basic critical music vocabulary.

MUSG 06303: Choral Literature 2 s.h.
A chronological study and analysis of small and large choral works from the early chant to the present is stressed through recordings, live performances and class participation. Conducting of choral work is a major activity of this course.

MUSG 06335: Development Of Musical Styles And Forms III 3 s.h.
The major trends in the music of our time, their role in our society and their relation to other arts are examined.

MUSG 06337: Music And The Theater 3 s.h.
The variety of musical styles, the function of music in this environment and its psychological effect on audiences of the past and present are studied. This course may not be offered annually.

MUSG 06435: Collegium Musicum 1 s.h.
An investigation of little known musical works, utilizing instruments and techniques of style of the period in study. Performance of these works will constitute much of the study of them.

MUSG 06439: New Jazz Structures 3 s.h.
A comprehensive study of compositional and improvisational techniques employed by contemporary jazz writers and performers. Jazz application of classical twentieth century classical music techniques are analyzed.

MUSG 06447: Music In World Cultures: Asia & Oceania 3 s.h.
A survey is made of the musical cultures of the world (excluding western art music), the role of music in society, and its relationship to other arts. Consideration will also be given to scale structure, instruments, musical forms and performance standards. Cultural areas of particular concern are Asia and Oceania.

MUSG 06448: Music In World Cultures: Africa, India, Near & Middle East 3 s.h.
A survey is made of the musical cultures of the world (excluding western art music), the role of music in society and its relationship to other arts. Consideration will also be given to scale structure, instruments, musical forms and performance standards. Cultural areas of particular concern are Africa, India, and the Near and Middle East.

SMED 01120: Foundations Of Music Education 3 s.h.
Foundations of Music Education is an introductory course in the music education program. It provides a broad overview of the field of music education, addressing the historical development of music education in the United States as well as current approaches and issues in the field. The course is framed by three guiding questions: What is the purpose of music education? How can students best explore music? And How can teachers best create music learning experiences for their students? In addition, two projects that extend throughout the music education major are introduced: a personal philosophy of music education, and a digital portfolio.
SMED 32329: Teaching/Learning Music A: Elementary General Music  3 s.h.
Prerequisites: C- or better in MUS 04130, MUS 04131, MUS 04132, MUS 04133, MUS 04240, MUS 04241, MUS 04242, MUS 04243, EDUC 01284, READ 03519 and SMED 33420
The methods, materials and techniques of teaching music from K through 12 are surveyed. Attention is given to the developmental sequence in the building of musical concepts necessary for the organization of an effective general music program in the public schools.

SMED 32330: Teaching/Learning Music B: Vocal Methods And Techniques  3 s.h.
This course, along with other courses in a series, helps to prepare students to teach the choral arts in the public schools with particular attention to grades 7-12. Techniques of teaching, vocal training, choral organization and the philosophy of teaching choral music are the areas to be emphasized.

SMED 32331: Teaching/Learning Music B: Instrumental Methods And Techniques  3 s.h.
A survey is made of the necessary understanding, techniques, and materials to develop an effective instrumental music program. Consideration is given to the place of instrumental music and its relationship to the total school program.

SMED 32440: Marching Band Techniques  3 s.h.
This course applies the fundamentals of precision marching and marching maneuvers along with new materials and techniques for the half-time show.

PHIL 09110: The Logic Of Everyday Reasoning  3 s.h.
This course in informal logic aims at improving the student’s reasoning through a thorough exposure to common logical fallacies as these appear in ordinary language, and through a study of rational procedures for problem-solving. Students have opportunities for extensive practice at discovering and overcoming their own logical faults in writing and speech as well as practice at rational problem-solving.

PHIL 09120: Introduction To Philosophy  3 s.h.
This basic course in the methods of philosophical inquiry investigates how these methods have been applied to selected philosophical issues by classical and contemporary philosophers.

PHIL 09121: Introduction To Philosophy - Wi  3 s.h.
Prerequisites: COMP 01112
Same as PHIL09.120, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

PHIL 09130: Introduction To Symbolic Logic  3 s.h.
This course provides students with a working familiarity with the principles and procedures involved in deductive logic.

PHIL 09211: World Philosophy I  3 s.h.
Prerequisites: COMP 01112
This course addresses questions about the nature of reality, and the nature and possibility of knowledge, through examination of selected texts by western and non-western philosophers from the ancient, medieval and renaissance periods.

PHIL 09213: World Philosophy II  3 s.h.
Prerequisites: COMP 01112
This course addresses questions about the nature of reality, and the nature and possibility of knowledge, through the examination of selected texts by western and non-western philosophers from the modern and contemporary period.

PHIL 09226: Philosophy Of Mind  3 s.h.
This course addresses philosophical questions about the nature of the mind. Some of these questions include: What is the relationship between the mind and the body? Can science fully understand the mind? Are minds like computers? What type of minds do non-human animals have? Students will learn the responses of classical and contemporary philosophers to these questions. Students will also develop and refine their own views in response to these questions.

PHIL 09227: Philosophy Of Mind - Wi  3 s.h.
Prerequisites: COMP 01112
Same as PHIL09.226, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.
Course Descriptions

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites/Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHIL 09240</td>
<td>Philosophy And Society</td>
<td>3 s.h.</td>
<td>This is a basic course in political and social philosophy. Through selected readings from classical and modern philosophers, students gain a better understanding of the philosophical issues which underlie the theory and practice of political and social life.</td>
</tr>
<tr>
<td>PHIL 09241</td>
<td>Philosophy And Society - Wi</td>
<td>3 s.h.</td>
<td><strong>Prerequisites:</strong> COMP 01112</td>
</tr>
<tr>
<td>PHIL 09250</td>
<td>Introduction To Ethics</td>
<td>3 s.h.</td>
<td>This historically structured course emphasizes both the nature of moral problems and the variety and adequacy of selected moral theories.</td>
</tr>
<tr>
<td>PHIL 09251</td>
<td>Introduction To Ethics - Wi</td>
<td>3 s.h.</td>
<td><strong>Prerequisite:</strong> COMP 01112</td>
</tr>
<tr>
<td>PHIL 09310</td>
<td>Aesthetics</td>
<td>3 s.h.</td>
<td><strong>Prerequisite:</strong> at least one PHIL 09 course, or more than one Arts course (ART, ARHS, MUS, MUSG, THD, RTF). This course offers students an approach to such philosophical issues as the nature; the role of the arts in human culture; and the articulation of criteria for interpretation and criticism. Students will refine their own approach to these issues by attending to specific works of poetry, fiction, drama, music, painting, sculpture, and other arts, including student works.</td>
</tr>
<tr>
<td>PHIL 09311</td>
<td>Aesthetics - Wi</td>
<td>3 s.h.</td>
<td><strong>Prerequisites:</strong> COMP 01112 AND at least one PHIL 09 course, or more than one Arts course, (ART, MUS,MUSG, THD, RTF). Same as PHIL09.310, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.</td>
</tr>
<tr>
<td>PHIL 09322</td>
<td>Business Ethics</td>
<td>3 s.h.</td>
<td>This course considers issues of human values in management, the relevance of ethical norms for management decisions and the relationship between business and society. Case studies of corporations are utilized to illustrate and clarify these issues.</td>
</tr>
<tr>
<td>PHIL 09323</td>
<td>Environmental Ethics</td>
<td>3 s.h.</td>
<td>This is a multidisciplinary course that addresses ethical issues and concerns regarding the environment; the relationships between the individual, society and the natural environment; the importance of common attitudes and prevailing world-views for understanding and responding to environmental challenges; and the need for changes in those attitudes and world-views. Students will be encouraged to think about the profound ethical, political, economic, religious, scientific, and technological implications of these environmental challenges.</td>
</tr>
<tr>
<td>PHIL 09325</td>
<td>American Philosophy</td>
<td>3 s.h.</td>
<td>This course examines the thought of selected American philosophers from the colonial period to the present. It stresses the distinctive American philosophical movement, Pragmatism, and some of its representative figures such as Charles Sanders Peirce, William James and John Dewey.</td>
</tr>
<tr>
<td>PHIL 09328</td>
<td>Philosophy And Gender</td>
<td>3 s.h.</td>
<td>This course will explore philosophical issues relating to gender as considered by classical, modern and contemporary philosophers. Recent work by feminist philosophers will be emphasized.</td>
</tr>
<tr>
<td>PHIL 09329</td>
<td>Philosophy And Gender - Wi</td>
<td>3 s.h.</td>
<td>This course will explore philosophical issues relating to gender as considered by classical, modern and contemporary philosophers. Recent work by feminist philosophers will be emphasized.</td>
</tr>
<tr>
<td>PHIL 09330</td>
<td>Asian Thought</td>
<td>3 s.h.</td>
<td>This course attempts to identify the key concepts in the intellectual histories of both India and China. The course studies important thinkers in both traditions to discover how they used these concepts in their own systems of thought and what they contributed to later developments of the concept.</td>
</tr>
</tbody>
</table>
PHIL 09341: Biomedical Ethics 3 s.h.
*Prerequisites: COMP 01112 and one Philosophy course or Permission from Instructor*

Ethical issues in health care, medicine and bio-technology; for example, abortion, termination of treatment, euthanasia, truth-telling and confidentiality, medical experimentation and informed consent, genetics, transplant surgery, artificial reproductive techniques, the allocation of medical resources and the impact of race, class and gender as they relate to biomedical issues.

PHIL 09346: Feminist Ethics 3 s.h.

Examines the central currents of feminist ethics, such as ethics of care and justice, abortion, parenting, social ethics, violence, eating disorders and embodiment, prostitution, medical and reproductive ethics, aging, disability, theological ethics.

PHIL 09368: Philosophy Of Science 3 s.h.

This course offers the student a basic understanding of some of the philosophical issues involved in modern science. The nature of scientific explanation and prediction, the character of scientific change, the structure and function of scientific theories, and the confirmation of scientific hypothesis are among the issues treated. Furthermore, attention is given to epistemological issues arising from the social structure of science, such as whether science is neutral or biased with respect to questions about gender, race, and religion.

PHIL 09369: Philosophy Of Science - Wi 3 s.h.
*Prerequisites: COMP 01112 or ENGR 01102*

Same as PHIL09.368, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

PHIL 09370: Epistemology 3 s.h.

This course addresses philosophical questions concerning the nature of knowledge. Some of these questions include: How can we be sure that our knowledge of the world is accurate? What is the relation of evidence to our understanding of the world? What distinguishes mathematical knowledge from scientific and ethical knowledge? Students will study and criticize both traditional and contemporary approaches to the understanding of knowledge. Students will also develop and refine their own views in response to these issues.

PHIL 09371: Epistemology- Wi 3 s.h.
*Prerequisite(s): COMP 01112*

This course addresses philosophical questions concerning the nature of knowledge. Some of these questions include: How can we be sure that our knowledge of the world is accurate? What is the relation of evidence to our understanding of the world? What distinguishes mathematical knowledge from scientific and ethical knowledge? Students will study and criticize both traditional and contemporary approaches to the understanding of knowledge. Students will also develop and refine their own views in response to these issues. Meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

PHIL 09372: Topics In The History Of Philosophy 3 s.h.

This course offers in-depth study of an important philosopher, movement or school. Topic varies. May not be offered every semester. May be taken more than once.

PHIL 09376: Philosophy Of Medicine-Wi 3 s.h.
*Prerequisite: COMP 01112*

This course addresses philosophical and methodological questions about medicine. Through a study of historical and contemporary medical practice and theory, this course examines the epistemological and institutional commitments of medicine. Some of the topics covered in the course are the nature of illness and health, epidemiology, drug testing, physician error, the relation of western and non-western approaches to healing, and the role of gender and race in medicine. The goal of the course is to develop a critically informed approach to the research and practical problems of medicine. This course meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

PHIL 09392: Contemporary Moral Problems 3 s.h.

This course will acquaint the student with recent work in applying moral theory to such issues as the environment, computers, nuclear war and deterrence, and to such professions as medicine, nursing, business, education and law.

PHIL 09393: Contemporary Moral Problems- Wi 3 s.h.
*Prerequisites: COMP 01112*

Same as PHIL09.392, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.
PHIL 09440: Selected Topics In Philosophy 3 s.h.
This course offers advanced study in a particular topical area of philosophy. Topic varies. May not be offered every semester. May be taken more than once.

PHIL 09490: Independent Study 3 to 6 s.h.

PHRE 11300: Philosophy Of Religion 3 s.h.
Prerequisites: at least one PHIL 09 course or one REL 10 or PHRE 11 course, or permission of instructor.
This course investigates such basic problems as the nature of religion and religious experience, the possibility of religious knowledge, the similarities and differences between the world's diverse religions, the basis for interfaith dialogue, the nature of religious practice and religious truth claims, the concept of God, the relation of religion to science and to morality, and the role of religion in modern global society.

PHRE 11310: Introduction To Buddhism 3 s.h.
Prerequisite: REL 1011 or REL 10200 or REL 10230 or PHIL 09330
This course introduces students to the central teachings and practices of Buddhism, from its Indian origins and East Asian development to its interactions with the modern West. Instructional methods include observation of Buddhist practice as well as study of Buddhist scriptures.

PHRE 11330: Introduction To Daoism 3 s.h.
Prerequisite: REL 10100 or REL 10200 or REL 10230 or PHIL 09330
This course introduces students to the central teachings and practices of Daoism, from its early founders Laozi and Zhuangzi to its interactions with the modern West. Instructional methods include observations of Daoist practice as well as study of Daoist scriptures.

PHRE 11340: Selected Topics In Philosophy & Religion Studies 3 s.h.
This interdisciplinary course examines intersections between philosophy and religion studies. May not be offered every year.

PHRE 11350: Spirituality And Healing 3 s.h.
This course examines the health and healing issues from a cross-cultural perspective. It investigates how different religious traditions interpret and assign meanings to sickness and disease, how they address matters of suffering and affliction, and how they practice healing and therapy. It explores the role and place of spiritual healing in the modern scientific age, and its implications for contemporary health care system and policies.

PHRE 11490: Senior Seminar In Philosophy And Religion 3 s.h.
This capstone course for the Philosophy and Religion major engages students in advanced level work in the disciplines of philosophy and religion studies, by focusing on a particular topic of the instructor's choice. Students complete individual projects. Required for Philosophy and Religion majors.

REL 10100: Introduction To Religion 3 s.h.
This introductory course studies the relationship of religion to culture. It explores varieties of religious expression as well as methods used in studying religion as a human phenomenon.

REL 10200: Religions Of The World 3 s.h.
This course surveys the major world religions in both the Eastern and Western traditions.

REL 10210: Religion In America 3 s.h.
This course explores the wide variety of religious movements that have existed and continue to exist in America. Both traditional religions and cults are considered within the context of American culture.

REL 10214: Religions Of The Western World 3 s.h.
This course will offer you the opportunity to explore the beliefs, literature, ethics and social implications of Judaism, Roman Catholicism, Orthodoxy, Protestantism, Islam and other religions as time permits.

REL 10230: Religions Of Asia 3 s.h.
This course introduces students to major religions in Asia: Hinduism, Buddhism, Confucianism, Taoism and Shinto. It focuses on the historical contexts, central teachings and traditional practices of these religions and their dynamic relations with societies and cultures. Instructional methods include observation of religious practice as well as study of religious scriptures.
### Course Descriptions

**REL 10240:** Introduction To The Bible  
3 s.h.  
This course acquaints students with the Bible by a study of its books with the aid of the findings of archeology, literary criticism and other related fields.

**REL 10301:** Introduction To Judaism  
3 s.h.  
This course introduces the student to the primary beliefs, texts, and spiritual approaches of the Jewish religious tradition. Covering approximately 3,000 years, this tradition has undergone many changes as the conditions of Jewish life changed. Students will study primary texts such as biblical accounts and commentaries along with contemporary personal reflections.

**REL 10320:** Introduction To Christianity  
3 s.h.  
*Prerequisites: COMP 01112 and one HHL Course*  
This course will introduce students to the history, texts, worldview, and contemporary issues of the Christian religious tradition. Spanning two thousand years, the Christian tradition has undergone many changes as it had evolved in the world. Students will study basic texts and historical events while also reflecting on contemporary issues.

**REL 10328:** Development Of Western Religious Thought  
3 s.h.  
This course emphasizes the contributions to the Western, and more specifically the Christian, tradition of such figures as Augustine, Aquinas, Luther, Kierkegaard, Tillich and Barth.

**REL 10340:** Selected Topics In Religion Studies  
3 s.h.  
*Prerequisite: Successful completion of any one PHIL 09XXX, PHRE 11XXX, or REL 10XXX course*  
This course examines one topic in religion in depth. Its topic may vary. This course may not be offered annually.

**ASTR 11120:** Introduction To Astronomy (Lecture And Lab)  
4 s.h.  
This course is a descriptive study of the universe that emphasizes the physical concepts that explain astronomical phenomena. The evolutionary, structural, and dynamical aspects of the solar system, stars, nebulae, galaxies, and the entire universe are discussed. The laboratory experience has both quantitative and qualitative components that include outdoor observations of night sky objects, daytime solar observations, and computer simulations. There is occasional evening viewing outside of class.

**ASTR 11200:** Exploration Of The Solar System  
3 s.h.  
In the study of planetary science, the students will explore geology, chemistry, physics and astronomy in their applications to the composition, dynamics, atmospheres, surfaces, and magnetospheres of objects within the solar system. The search for life or conditions suitable for life in other parts of the solar system is a driving force of solar system exploration, thus biology is incorporated as well. This course will help the student develop skills necessary to discuss and write about science.

**ASTR 11220:** Observational Astronomy  
4 s.h.  
*Prerequisite: MATH 01122 OR MATH 01130 OR MATH 01140 OR MATH 03125*  
This course surveys current methods in modern astronomy research and education. The topics include, but are not limited to, modern telescopes (optical and radio), CCD cameras, astronomical data, imaging software, solar observing, and planetarium operation. Topics during a given term may be chosen around a theme of either research or education. This course features the use of precision instruments and quantitative methods. Evening observational projects, field trips, and oral presentations are part of this course.

**ASTR 11230:** Introduction To Astronomy And Astrophysics  
4 s.h.  
*Prerequisite: MATH 01130 OR MATH 01140*  
This course is an overview of astrophysics, with an emphasis on the relevant physics in modern astronomy. Topics include the solar system, properties of stars, stellar structure and evolution, supernovae, white dwarfs, neutron stars, black holes, the Milky Way galaxy, star formation, interstellar medium, normal galaxies, active galaxies and quasars, and Big Bang cosmology. The relevant physics will be briefly presented in the course. This course is intended for students majoring in the natural sciences, mathematics, computer science, and engineering.

**ASTR 11250:** Astronomy Research I  
1 to 3 s.h.  
*Prerequisite: minimum 3.0 GPA within major/minor AND permission of instructor*  
This course introduces and/or develops modern research techniques used in astronomy. Research is performed in collaboration with astronomy faculty. Emphasis will be placed on developing research skills, developing technical writing skills, and the development of skills needed for scientific presentations.
Course Descriptions

ASTR 11251: Astronomy Research II 1 to 3 s.h.
**Prerequisite: minimum 3.0 GPA within major/minor AND permission of instructor**
This course introduces and/or develops modern research techniques used in astronomy. Research is performed in collaboration with astronomy faculty. Emphasis will be placed on developing research skills, developing technical writing skills, and the development of skills needed for scientific presentations.

ASTR 11301: Planetary Astronomy 3 s.h.
**Prerequisites: (ASTR 11241 or ASTR 11230) or (PHYS 02201 or PHYS 00222)**
The science of planetary systems, both solar and extra-solar, is examined. Topics include planet formation, radioactive dating, small-body dynamics, interactions of radiation with matter, tides, planetary interiors, atmospheres, and magnetospheres.

ASTR 11302: Stellar Astrophysics 3 s.h.
**Prerequisites: (ASTR 11241 or ASTR 11230) or (PHYS 02201 or PHYS 00220)**
This course presents the properties, structure, formation, evolution, and deaths of stars. The physics of stellar atmospheres and stellar spectroscopy is presented, and the development of the Hertzsprung-Russell diagram is examined. The theory of stellar structure is detailed including the process of stellar nucleosynthesis. Degenerate matter and the structure of collapsed stars are described. Other topics include: stellar pulsation, close binary systems, accretion, novae, supernovae, pulsars, black holes, and star clusters.

ASTR 11303: Galactic Astronomy And Cosmology 3 s.h.
**Prerequisites: (ASTR 11241 or ASTR 11230) or (PHYS 02201 or PHYS 00220)**
The structure, kinematics, formation, and evolution of the Milky Way Galaxy and other galaxies are studied. Elements of general relativity are introduced as the physics of supermassive black holes and active galaxies are examined. This course covers relativistic (Big Bang) cosmology, the large-scale structure of the Universe, the expansion history and fate of the Universe, and current estimates of the age of the Universe. Observations that measure the matter and energy content of the Universe are presented. Cosmic inflation, primordial nucleosynthesis, the Cosmic Microwave Background, and the Hubble flow are covered in depth.

ASTR 11350: Astronomy Research III 1 to 3 s.h.
**Prerequisite: PHYS 00300 AND minimum 3.0 GPA within major/minor AND permission of instructor**
This course introduces and/or develops modern research techniques used in astronomy. Research is performed in collaboration with astronomy faculty. Emphasis will be placed on developing research skills, developing technical writing skills, and the development of skills needed for scientific presentations.

ASTR 11450: Astronomy Research IV 1 to 3 s.h.
**Prerequisite: PHYS 00300 AND minimum 3.0 GPA within major/minor AND permission of instructor**
This course introduces and/or develops modern research techniques used in astronomy. Research is performed in collaboration with one or more faculty in an area of specialization of the faculty. Emphasis will be placed on developing research skills, developing technical writing skills, and the development of skills needed for scientific presentations.

ASTR 17110: Principles Of Earth Science 3 s.h.
This course examines the basic concepts of astronomy, meteorology, geology and the principles derived from those concepts.

PHSC 01110: Principles Of Physical Science 3 s.h.
This course provides experiences and information that will develop a better understanding of the function and significance of science in today’s world. It emphasizes the general principles of physics and stresses their influences in the development of all the physical sciences.

PHSC 01310: Independent Study (Physical Sciences) 1 to 6 s.h.
**Prerequisites: permission of instructor.**
Students who enter the independent study program working under the supervision of a faculty member are required to identify and select an appropriate project area, develop an achievable plan, execute the project and prepare a presentation of the completed study.

PHYS 00120: Selected Topics In Physics 3 s.h.
The content of this course varies to reflect the role of physics in society. A limited number of topics are selected from among the following: mechanics, thermodynamics, sound, light and optics, electricity and magnetism, electric circuits, modern physics or the investigation of the physics of applied technologies. It studies the fundamental principles underlying the topics and considers connections to the physical and social environment.
PHYS 00140: Physics Of Current Technologies 4 s.h.
This course introduces contemporary concepts of physics through their application in commercially available technologies. The course mostly focuses on information storage technologies but actual course content evolves to reflect the specialties of the instructor. Concepts such as electrical resistance, magnetic fields, magnetic domains, electron tunneling, and assorted microscopic techniques will be introduced. Laboratories consist of hands-on activities including the imaging of magnetic information (magnetic domains), optical information (CD dyes) and individual atoms.

PHYS 00150: Physics Of Everyday Life 4 s.h.
The goal of this course is to expose students with a non-science background to physics. The students will experience the excitement of physics by examining phenomena of our everyday environment. The historical development of such ideas will be studied as well. Topics selected for study include Mechanics, Matter, Heat, Sound, Light, Electricity, Magnetism, Atomic and Nuclear Physics. Physics will be communicated conceptually rather than mathematically.

PHYS 00175: Physics Of Sound And Music (Lecture And Lab) 4 s.h.
The goal of this course is to expose students to physics through its application to sound and music. The students will study these applications by examining the phenomena of voice, sound, hearing, musical instruments, acoustics, electronic technology and reproduction of sound and music. The historical development of such topics will be studied as well.

PHYS 00210: Physics I Without Calculus 4 s.h.
Prerequisites: Score of at least 60 on CLM OR MATH 01122 OR MATH 01130 with concurrent registration allowed OR MATH 01140 with concurrent registration allowed
This course studies the principles of mechanics, heat, and fluids. Calculus is not used. The course emphasizes problem work involving the use of Algebra, Trigonometry, and Geometry.

PHYS 00211: Physics II Without Calculus 4 s.h.
Prerequisite: PHYS 00210 or PHYS 00220
This course studies the basic principles of electricity, magnetism, and light. Calculus is not used. The course emphasizes problem work involving the use of Algebra, Trigonometry, and Geometry.

PHYS 00220: Introductory Mechanics 4 s.h.
Co/Prerequisite: MATH 01130 or Math 01140
This course studies the basic principles or mechanics and is equivalent to most calculus based introductory mechanics courses often entitled Physics I. The course is designed to cover introductory mechanics. (Newton's laws, energy and momentum conservation, rotating systems, statics, gravity and simple harmonic motion) at a level appropriate for future scientists and engineers. The course includes a laboratory component and it emphasizes problem-solving techniques.

PHYS 00221: Introductory Thermodynamics, Fluids, Waves, & Optics 4 s.h.
Prerequisite: PHYS 00220 Corequisite: MATH 01131 or MATH 01141
This introductory course studies the basic principles of thermodynamics, fluids, waves, and optics and their application. The concepts will be applied through problem solving and laboratory experiences. A large portion of the content of this course builds from the concept of conservation of energy covered in the introductory mechanics course. The course is required for any physical science major and recommended for those majoring in biochemistry, chemistry, biology, engineering, or mathematics. The specific topics covered include elastic properties of materials, fluid mechanics, mechanical waves, sound, conduction of heat, kinetic theory of gasses, the laws of thermodynamics, light, geometric optics, interference and diffraction.

PHYS 00222: Introductory Electricity & Magnetism 4 s.h.
Prerequisite: PHYS 00220 Corequisite: MATH 01131 or MATH 01141
This course studies the basic principles of electricity and magnetism and is equivalent to most calculus based introductory electricity and magnetism courses often entitled Physics II. The course is designed to cover introductory electricity and magnetism (charge, current, potential, fields, AC and DC circuits, Maxwell's Equations, and electromagnetic waves) at a level appropriate for future scientists and engineers. The course includes a laboratory component and it emphasizes problem-solving techniques.

PHYS 00250: Physics Research I 1 to 3 s.h.
Prerequisite: Minimum 3.0 GPA within major/minor AND permission of instructor.
This course introduces and/or develops modern research techniques used in physics. Research is performed in collaboration with one or more faculty in an area of specialization of the faculty. Emphasis will be placed on developing research skills, developing technical writing skills, and the development of skills needed for scientific presentations.

Course Descriptions
PHYS 00251: PHYSICS RESEARCH II 1 to 3 s.h.
Prerequisite: Minimum 3.0 GPA within major/minor AND permission of instructor.
This course introduces and/or develops modern research techniques used in physics. Research is performed in collaboration with one or more faculty in an area of specialization of the faculty. Emphasis will be placed on developing research skills, developing technical writing skills, and the development of skills needed for scientific presentations.

PHYS 00300: Modern Physics 4 s.h.
Prerequisite: (MATH 01131 or MATH 01141) AND (PHYS 00211 or PHYS 00222)
This course covers modern physics developed since the turn of the 20th century. After a review of some classical physics, course topics include special relativity, wave and particle aspects of radiation, matter waves, models of the atom, ionization, spectra, x-rays, and introductory quantum theory. It also covers theories developed by Planck, Einstein, Rutherford, Bragg, Bohr, Compton, de Broglie, Pauli, Schrodinger and Heisenberg.

PHYS 00310: Analytical Mechanics 4 s.h.
Prerequisite: PHYS 00300
This course teaches students Newtonian, Lagrangian and Hamiltonian formulations of mechanics, and their applications to such problems as Central Force Motion, Linear and Nonlinear Oscillations, Collisions between particles, Noninertial Systems, Coupled Oscillations and Normal Coordinates, and Rigid Bodies.

PHYS 00320: ELECTRICITY & MAGNETISM I 4 s.h.
Prerequisite: 00300
This course studies classical electro-magnetism. Its topics include: the laws of electromagnetic force, Maxwell's equations, electromagnetic induction, interaction of currents, and electromagnetic energy and waves. This course may not be offered annually.

PHYS 00321: Electricity And Magnetism II 3 s.h.
Prerequisite: PHYS 00320
This course studies advanced applications of Maxwell's equations. For example, the generation of electromagnetic radiation and its propagation through matter will be discussed. The connection between Maxwell's equations and the special theory of relativity will be emphasized.

PHYS 00325: Electric Circuits 4 s.h.
Prerequisite: PHYS 00300
This course provides a lab-intensive introduction to electronic circuit design, construction, and troubleshooting, developing many of the analytical and laboratory skills needed to work with circuits commonly encountered in experimental physics research. Although the emphasis is on analog circuits, elementary digital circuits will be studied as time permits. A required final project integrates elements learned throughout the term.

PHYS 00330: Mathematical Physics 3 s.h.
Prerequisite: PHYS 00300
This introductory course studies topics as they apply to physics: infinite series, complex numbers, determinants and matrices, partial differentiation, vector calculus, Fourier series. Certain more advanced topics may be treated: calculus of variations, gamma and beta functions, coordinate transformations, tensor analysis, functions of a complex variable, Legendre polynomials and Bessel functions. This course may not be offered annually.

PHYS 00340: Optics And Light 4 s.h.
Prerequisite: PHYS 00300
This course studies the nature and propagation of light, dispersion, reflection and refraction at plane and spherical surfaces, lenses (thin and thick), aberrations of lenses and mirrors, optical instruments, polarization, diffraction and photometry. It also discusses modern developments and techniques (such as fiber optics, lasers, holography). This course may not be offered annually.

PHYS 00345: Introduction To Optical Design Program Zemax 3 s.h.
Prerequisite: PHYS 00300
The ZEMAX optical design program is a comprehensive software tool for optical design. It integrates all the features required to conceptualize, design, optimize, analyze, tolerance, and document virtually any optical system. This course discusses the theory of optical system design with focus on geometrical optics and aberration theory. It introduces the computer program ZEMAX as a tool for lens designs such as spectrometers, scanning systems and telescopes. ZEMAX is widely used in the optics industry as a standard design tool.
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<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
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<tbody>
<tr>
<td>PHYS 00350</td>
<td>Physics Research III</td>
<td>1 to 3 s.h.</td>
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<tr>
<td><strong>Prerequisite:</strong> PHYS 00300 AND minimum 3.0 GPA within major/minor AND permission of instructor</td>
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<tr>
<td>This course teaches students Newtonian, Lagrangian and Hamiltonian formulations of mechanics, and their applications to such problems as Central Force Motion, Linear and Nonlinear Oscillations, Collisions between particles, Noninertial Systems, Coupled Oscillations and Normal Coordinates, and Rigid Bodies.</td>
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<tr>
<td>PHYS 00361</td>
<td>Physics Learning Assistant For Introductory Mechanics</td>
<td>2 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> PHYS 00300 Modern Physics; 3.0 minimum GPA in introductory physics courses and permission of instructor</td>
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<tr>
<td>This upper-level Physics course is designed to provide students with experience in solving laboratory problems and broaden their knowledge of basic physics. Students will gain this experience by 1) providing assistance to student groups during the laboratory activity, 2) preparing materials for laboratory activities, and 3) developing new laboratory activities. This course is recommended for all Physics and Physical Science students since it improves their depth of knowledge of physics while enhancing their communication skills. This specific course is geared toward the area of mechanics.</td>
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<tr>
<td>PHYS 00362</td>
<td>Physics Learning Assistant For Introductory Thermodynamics, Fluids, Waves, And Optics</td>
<td>2 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> PHYS 00300 Modern Physics; 3.0 minimum GPA in introductory physics courses and permission of instructor</td>
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<td>This upper-level Physics course is designed to provide students with experience in solving laboratory problems and broaden their knowledge of basic physics. Students will gain this experience by 1) providing assistance to student groups during the laboratory activity, 2) preparing materials for laboratory activities, and 3) developing new laboratory activities. This course is recommended for all Physics and Physical Science students since it improves their depth of knowledge of physics while enhancing their communication skills. This specific course is geared toward the areas of thermodynamics, fluids, waves, and optics.</td>
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<tr>
<td>PHYS 00363</td>
<td>Physics Learning Assistant For Introductory Electricity And Magnetism</td>
<td>2 s.h.</td>
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<tr>
<td><strong>Prerequisites:</strong> PHYS 00300 Modern Physics; 3.0 minimum GPA in introductory physics courses and permission of instructor</td>
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<td>This upper-level Physics course is designed to provide students with experience in solving laboratory problems and broaden their knowledge of basic physics. Students will gain this experience by 1) providing assistance to student groups during the laboratory activity, 2) preparing materials for laboratory activities, and 3) developing new laboratory activities. This course is recommended for all Physics and Physical Science students since it improves their depth of knowledge of physics while enhancing their communication skills. This specific course is geared toward the areas of electricity and magnetism.</td>
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<tr>
<td>PHYS 00410</td>
<td>Quantum Mechanics I</td>
<td>4 s.h.</td>
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<td><strong>Prerequisite:</strong> PHYS 00300</td>
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<td>This course will serve as an introduction to quantum mechanics. Students will learn the basic concepts of quantum mechanics and how to solve simple problems using quantum mechanics. Topics selected for study include the origins of quantum mechanics, the free particle in wave mechanics, particles in one-dimensional potentials, the axiomatic formulation of quantum physics, particles in three-dimensions, spin and the Pauli exclusion principle.</td>
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<td>PHYS 00411</td>
<td>Quantum Mechanics II</td>
<td>3 s.h.</td>
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<td><strong>Prerequisite:</strong> PHYS 00410</td>
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<td>This course is a continuation of Quantum Mechanics I. Students will learn more advanced concepts and problems in quantum mechanics. Topics selected for study include the formalism of quantum mechanics, particles in three-dimensions, spin and angular momentum, quantum statistical mechanics, time-independent perturbation theory, time-dependent perturbation theory, and scattering. Some topics may overlap with the ones in Quantum Mechanics I, but are taught on a higher level.</td>
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<tr>
<td>PHYS 00430</td>
<td>Statistical Physics</td>
<td>3 s.h.</td>
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<td><strong>Prerequisite:</strong> PHYS 00300</td>
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<td>The student will study in detail the laws of thermodynamics. The statistical derivation of these laws will be presented. Topics include: ideal gases, classical and quantum distribution functions, phase transitions, and other special topics.</td>
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<tr>
<td>PHYS 00440</td>
<td>Advanced Laboratory</td>
<td>4 s.h.</td>
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<tr>
<td><strong>Prerequisite:</strong> PHYS 00300</td>
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<td>This course introduces modern experimental techniques commonly used in physics. Experimental results will be correlated with existing theories. Technical writing skills will be developed and evaluated.</td>
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PHYS 00450:  Physics Research IV  
Prerequisite: PHYS 00300 AND minimum 3.0 GPA within major/minor AND permission of instructor
This course introduces and/or develops modern research techniques used in physics. Research is performed in collaboration with one or more faculty in an area of specialization of the faculty. Emphasis will be placed on developing research skills, developing technical writing skills, and the development of skills needed for scientific presentations.

PHYS 00470:  Selected Topics In Advanced Physics  
Prerequisite: PHYS 00300 or permission of instructor
This course is aimed to expose students to advanced physics topics that are important for their career development and their involvement with faculty research. The topics include, but are not limited to, Solid State Physics, Atomic and Molecular Physics, Occupational Physics, Special Relativity, and Elementary Particles. One topic from the above list will be chosen each time the course is offered.

PHYS 00475:  Radiation Physics  
Prerequisites: PHYS 00300 For Biology, Chemistry, and Biochemistry Majors: (BIOL 01202 or BIOL 01203) and PHYS 00211
This course is a lecture course aimed at training students at understanding radiation and its role in measurement sciences, imaging, spectroscopy, diffraction, and ionization of biomaterials. This course is useful for students planning a career in biophysical sciences, helath physics, or radiation physics. Radiation Physics will introduce students to x-ray, gamm, and neutron instrumentation and techniques. Students will gain an understanding of the interaction of radiation with matter and how radiation is used in imaging, measurement and for ionizing matter. This course will be part of a future Health Physics specialization.

PHYS 00499:  Independent Study - Physics  
1 to 4 s.h.

ECON 04100:  American Economic Systems  
3 s.h.
Focuses on the fundamental ideology, mechanics, development, and contemporary state of American economic system with reference to the global economy. Course is recommended for all students who want only a one semester course in economics.

ECON 04101:  An Introduction To Economics-A Macroeconomic Perspective  
3 s.h.
This course analyzes the overall level of economic activity in the United States and examines its major determinants, public stabilization policies, economic growth and international trade.

ECON 04102:  An Introduction To Economics-A Microeconomic Perspective  
3 s.h.
This course analyzes resource allocation among alternative uses. It studies consumer demand, product and factor price determination, general equilibrium and optimal income distribution.

ECON 04200:  History Of Economic Ideas  
3 s.h.
This course investigates the development of economic thought. It analyzes the significant contribution of philosophers and economists from the works of Plato to those of Keynes.

ECON 04205:  American Economic History  
3 s.h.
This course surveys the process of U.S. economic development to the present day. It analyzes the factors behind the growth of the U.S. economy and the prospects for the future. This course may not be offered annually.

ECON 04210:  Environmental Economics  
Prerequisites: ECON 04102
3 s.h.
This course analyzes the economic causes and consequences of environmental deterioration and examines the relevant public policies. This course may not be offered annually.

ECON 04215:  Current Economic Problems And Policies  
Prerequisites: ECON 04101 and ECON 04102
3 s.h.
This course explores current significant problems confronting the United States' economy. This course may not be offered annually.

ECON 04225:  Women In The Economy  
3 s.h.
This course analyzes the economic roles of women in society and studies recent movements, policies and their implementation. This course may not be offered annually.
ECON 04269: Selected Topics In Economics 3 to 6 s.h. 
**Prerequisites:** ECON 04101 or ECON 04102
This course focuses on a detailed study of a selected topic in economics. Students should consult the instructor regarding the course topic, methodology, and objectives. Any particular selected topic(s) may be offered once within a period of three years.

ECON 04282: Economic Statistics 3 s.h. 
**Prerequisites:** ECON 04101, ECON 04102 and STAT 02100 or STAT 02260
This course studies statistical decision-making, linear regression, correlation and the construction and use of index numbers and time series through the explicit use of economic examples, illustrations and applications.

ECON 04292: Statistics For Economists 3 s.h. 
**Prerequisites:** ECON 04101 and ECON 04102
This course is an introduction to the use of statistical concepts and their applications in economics. The course covers areas such as probability, hypothesis testing, regression analysis, correlation, and time series. Students cannot receive credit for both this class and Economic Statistics (ECON 04.282).

ECON 04301: Intermediate Macroeconomics 3 s.h. 
**Prerequisites:** ECON 04101
This course analyzes in depth the factors determining the level of national income, employment, price levels and interest rates.

ECON 04302: Intermediate Microeconomics 3 s.h. 
**Prerequisites:** ECON 04102 AND (MATH 01130 OR MATH 01140 OR MATH 03125)
This course analyzes factor price determination, general equilibrium, capital theory and optimal income distribution.

ECON 04303: Principles Of Economics: A Survey 3 s.h.
This course analyzes the market system and alternative mechanisms for determining prices and allocating resources. Pure competition, monopolistic competition, oligopoly and monopoly are examined. Additionally, the determinants of aggregate employment and national income, money, banking, monetary policy, international trade and finance are analyzed. This course is not available to economics majors.

ECON 04305: Money And Banking 3 s.h. 
**Prerequisites:** ECON 04101
This course studies the operation of the money and banking system in the U.S. It stresses Federal Reserve control of money supply and credit conditions to combat inflation and unemployment. It considers monetary arrangements and problems among nations. This course may not be offered annually.

ECON 04307: Economic Development M/G 3 s.h. 
**Prerequisites:** ECON 04101 and ECON 04102
This course studies the process of economic growth, the sources of increasing economic productivity, the resources for investment and the proper allocation of resources. This course may not be offered annually.

ECON 04310: Global Economics - M/G 3 s.h. 
**Prerequisites:** ECON 04101 and ECON 04102
This course studies the economic aspects of globalization taking place amongst countries through linkages of international trade and commerce, foreign direct investment, short term capital flows, institutional lending, immigration, emigration, knowledge, and technology. Emphasis will be placed on the economic processes and ramifications of globalization. This course may not be offered annually.

ECON 04315: Public Finance 3 s.h. 
**Prerequisites:** ECON 04101 and ECON 04102
This course investigates taxes and debts of government, its budgets and intergovernmental fiscal relationships and public expenditure theory (cost-benefit analysis). This course may not be offered annually.

ECON 04320: Contemporary Economic Systems M/G 3 s.h. 
**Prerequisites:** ECON 04101 and ECON 04102
This course analyzes theories, policies and practices of selected countries and methods of solving macroeconomic and microeconomic problems. This course may not be offered annually.
### ECON 04345: Labor Economics 3 s.h.
**Prerequisites: ECON 04102**
This course studies the development of the American trade union movement and its impact on wage levels and income distribution. It examines the impact of trade unions on individual employers in the private and public sectors with the help of simulation of contract negotiation. This course may not be offered annually.

### ECON 04351: Health Economics 3 s.h.
**Prerequisites: ECON 04101 and ECON 04102**
An economic analysis of the health care industry and the roles of markets and government are examined. Topics to include access to care, cost containment, the role of insurance, and the impact of information and technology.

### ECON 04360: Urban Economics 3 s.h.
**Prerequisites: ECON 04102**
This course analyzes the economic problems that are related to the urban crisis in America and examines the implications of existing public policies for the resolution of the problems. Urban poverty and discrimination, housing and transportation receive comprehensive treatment. This course may not be offered annually.

### ECON 04392: Econometrics 3 s.h.
**Prerequisites: ECON 04292 and MATH 03125 or MATH 01130**
Econometrics is the set of statistical techniques used to measure and analyze economic relationships, and to test these predictions. This course will focus on statistical analysis and the interpretation of economic data. In addition, the course will utilize data analysis and statistical modeling and apply economic methods to problems in economics.

### ECON 04395: The Economics Of Personal Financial Planning 3 s.h.
**Prerequisites: ECON 04101 and ECON 04102**
This course examines the process of developing and implementing long-range plans to achieve financial objectives. Studies personal and family resources, how people spend, save, protect and invest their money, concepts of budgeting, cash management, borrowing, tax management, risk management, investments, retirement planning, and estate planning receive particular attention.

### EDPA 02320: Public Administration 3 s.h.
Students consider public administration principles and organizations, internal governmental administrative structures, the interactions between organizations and their environments, personnel and policy procedures, administrative communication methods, and other management techniques. This course may not be offered annually.

### EDPA 02410: Public Policy 3 s.h.
Students analyze U.S. public policy using a variety of conceptual models including cost-benefit analysis. Case studies are emphasized. This course may not be offered annually.

### EDPA 02412: Administrative Law And The Regulatory Process 3 s.h.
A study of the federal regulatory process and the politics of regulatory agencies in the U.S. Emphasis is upon the political economy of regulation. This course may not be offered annually.

### EDPA 02490: Public Service Internship 3 to 12 s.h.
**Prerequisites: EDPA 02320 or POSC 07300 or POSC 07303**
Students are provided with an opportunity to get first-hand experience in government administration and related political processes through work in a variety of public settings (government agencies, public officials' offices, law firms, etc.).
Course Descriptions

POSC 07100:  Introduction To Government And Politics  3 s.h.
Professors who teach this course will normally focus on some, but not all, of the following topics: political and
governmental structures, functions, and processes; political behavior; public law and public policy; and political values or
philosophies.

POSC 07110:  American Government  3 s.h.
This course focuses on the American Federal government, emphasizing the structure, operation and processes of our
political system. Coverage will include political values as they are reflected in major public policies.

POSC 07200:  Survey Of Western Political Theory  3 s.h.
This course provides students with an understanding of Western political thought from Plato to Karl Marx. It surveys
Western political theory and analyzes such major concepts as order, justice, freedom, authority, power and political
obligation.

POSC 07220:  State And Local Government  3 s.h.
Prerequisites: POSC 07110
This course studies legislatures, executives, judicial systems and bureaucracies in the working of state and local government
and the influence of political parties, interest groups, and elections on government policy. It examines inter-governmental
relations and the role of state and local government in the federal system. This course may not be offered annually.

POSC 07230:  Comparative Political Systems  3 s.h.
Prerequisites: POSC 07110
This course presents a comparative analysis of the fundamental law, political institutions, policies and processes and their
relationship to political culture in Britain, France, the C.I.S. and a selected Third World country.

POSC 07303:  Campaigns, Political Parties And Interest Groups  3 s.h.
Prerequisites: POSC 07110
This course compares the functions of U.S. political parties, interest groups, and political movements in recruiting and
nominating candidates for public office, supporting campaigns and elections, organizing and staffing government,
representing and shaping public opinion, and rationalizing and mobilizing the vote. The U.S. system is compared to the
systems of other countries. Special attention is given to the civil rights movement, the reform of the presidential election
process, and the candidate-centered professional campaign in the decline of the influence of the political parties.

POSC 07305:  The Legislative Process  3 s.h.
Prerequisites: POSC 07110
This course examines the structure, politics and policy-making functions within the legislative process, focusing on the role
of Congress and the state legislature in the U.S. political system. This course may not be offered annually.

POSC 07306:  The Presidency  3 s.h.
Prerequisites: POSC 07110
This course studies the office of the President, its history, powers and role in the American political system. The course
stresses the relationship of the presidency to other branches of government and of the White House agencies to the other
elements of the Executive Branch. This course may not be offered annually.

POSC 07308:  Current Problems In American Politics  3 s.h.
This course deals with selected issues of topical concern in American politics. Issues may be "headlines" that are receiving
current media attention (usually policy debates), or they may focus on more persistent problems of the kind that concern
political scientists, e.g. the consequences of party decline, the role of media in elections, etc. This course may not be offered
annually.

POSC 07310:  American Constitutional Law  3 s.h.
Prerequisites: POSC 07110
An introduction to major concepts of constitutional law as reflected in landmark cases, this course considers such matters
as judicial review, national supremacy, the separation of powers, constitutional federalism and the commerce clause as well
as the impact of various judicial philosophies on the decisions of the Supreme Court.

POSC 07311:  Women And American Politics  3 s.h.
This course examines the historical role of women in a variety of political movements, varied views of feminism and the
impact of participation on the changing status of women in American society. This course may not be offered annually.
Course Descriptions

POSC 07312: Freedom Of Expression  3 s.h.
This course considers the range of first amendment issues relating to speech, the press and the right to assemble. Issues of censorship and national security, obscene speech, commercial speech, and libel, among others, will be discussed. This course may not be offered annually.

POSC 07320: International Relations  3 s.h.
Prerequisites: POSC 07110
This course studies the distribution of power among states in the international system, the effect of system change on national behavior, external and domestic sources of international influence and the relationship of capabilities and intentions in foreign policy decisions.

POSC 07321: Contemporary World Problems  3 s.h.
This course examines selected problems such as terrorism, world population and hunger, regional conflicts and arms control and disarmament.

POSC 07323: Politics Of Race, Poverty, And Welfare In The U.S.  3 s.h.
This course studies the social structure of race and poverty in the United States and explores the constituencies for anti-poverty and anti-discrimination legislation. This course may not be offered annually.

POSC 07324: Black Americans And American Politics  3 s.h.
This course examines the role of Black Americans in the political system, the forms and changing nature of their participation and a review of judicial and administrative decisions affecting the political and social status of Black Americans. This course may not be offered annually.

POSC 07330: Contemporary U.S. Foreign Policy  3 s.h.
Prerequisites: POSC 07110
This course presents historical themes and patterns of U.S. foreign policy with special focus on the post-World War II period. It considers the sources of influence on policy-making and the major issues in contemporary policy. This course may not be offered annually.

POSC 07340: Civil Rights And Civil Liberties  3 s.h.
Prerequisites: POSC 07110
This course examines major trends and court decisions which have affected civil rights and civil liberties. Topics which may be raised include religion, speech, press, privacy, voting, equal protection, and due process.

POSC 07341: Russian, East European And Eurasian Politics  3 s.h.
This course examines the politics and history of Eastern Europe and the fifteen Soviet successor states in contemporary Eurasia. Processes of political, economic and social change are studied with an eye on institutional, attitudinal, and behavioral adaptations to the new realities. This course may not be offered annually.

POSC 07346: Politics And Society Of Great Britain  3 s.h.
This course studies the unique aspects of a political system which has functioned without a written constitution. It emphasizes the historic development of British constitutional notions, and the relationships between the major institutions of monarchy, the parliament, the cabinet and political parties. This course may not be offered annually.

POSC 07347: Politics Of The Middle East  3 s.h.
Prerequisites: POSC 07110
This course provides students with an introduction to the rise of states, social movements, and contentious politics in the greater Middle East region. The course begins with the decline of empires and state formation up through the 20th century, then examines political change in the region, (Islamist mobilization, revolution, civil war and democratization), and concludes with a survey of contemporary issues, such as nationalism, Muslim minority politics, women and politics, and changes in international politics since September 11, 2001.

POSC 07350: Introduction To Asian Political Systems  3 s.h.
This course focuses on the political systems and processes of major Asian nations: India, Pakistan, Sri Lanka, Indonesia, Japan and China. This course may not be offered annually.
POSC 07351: Russian Foreign Policy  
Students study the historical record of Soviet foreign policy since 1917, examining the relative importance of ideology and national interest and other domestic and external influences on Soviet policy-making. The course also discusses policy process and contemporary problems of policy. This course may not be offered annually.

POSC 07360: Methodology And Statistics In Political Science Research  
Prerequisites: POSC 07360 prerequisite General Requirements:  
This course considers the varied ways that political scientists study problems, with primary attention to scientific method and quantitative skills. Students are expected to become adept at using and interpreting forms of descriptive statistics commonly used in the social sciences.

POSC 07370: Special Topics In Political Science  
This course is a vehicle to allow visiting scholars to offer courses in their specialties which are not part of regular course offerings. This course may not be offered annually.

POSC 07375: Politics And The Judicial Process  
Prerequisites: POSC 07110  
This course describes and analyzes the American judicial process, with particular attention to the role of the judicial branch in developing public policy. Topics to be explored include jurisprudential theories of the law, the organization and staffing of courts, civil and criminal process, judicial selection methods, judicial behavior, the legal profession, law and social change and the political and social impact of court decisions.

POSC 07380: Politics On Film  
Prerequisites: POSC 07110  
This course in American national politics and government uses film and other examples of popular culture as tests to supplement conventional readings, lectures, and assignments. Topics include political culture, political institutions, campaigns, and public policy.

POSC 07385: Environmental Policy  
Prerequisite: POSC 07110  
This course will introduce students to major national debates over environmental politics and policy. It will discuss both theory and practice, emphasizing the political, organizational, scientific and economic drivers shaping environmental policy. It will also use case studies to explore the history and results of the environmental movement.

POSC 07400: American Political Thought  
This course studies the development of American political thought from colonial times to the present through major thinkers. Ideas are considered in relation to political events and broader historical movements to which they are connected. This course may not be offered annually.

POSC 07401: Contemporary Political Thought  
This course considers major 19th and 20th century ideologies from the perspectives of thinkers who helped shape them. It considers socialism, fascism, liberalism and conservatism through the works of writers like Marx, Mill, Ortega and Burke. The course may also consider contemporary rethinking of contract theory (e.g. Rawls, Nozick). This course may not be offered annually.

POSC 07410: Selected Problems In Constitutional Law  
Prerequisites: POSC 07310  
This course explores specific issues in recent Supreme Court decisions, and the process through which such issues are resolved, emphasizing one or two areas of current interest. This course may not be offered annually.

POSC 07415: In-Depth Study Of The Current Supreme Court  
Students spend three days hearing oral arguments at the Supreme Court. Prior research on an assigned case will culminate in a paper in which the student will predict the outcome of the Court’s decision.

POSC 07420: International Law  
This course considers the role of law among nations, the source of international law in practice and convention and the national courts, international courts and other vehicles for adjudicating and enforcing international law. This course may not be offered annually.
Course Descriptions

POSC 07421: International Organizations 3 s.h.
This course studies the League of Nations, the United Nations and other international and regional organizations in relation to such functions as peace-keeping, conflict resolution, international consensus-building, etc. This course may not be offered annually.

POSC 07441: Political Problems Of Modern Africa 3 s.h.

POSC 07489: Seminar In Political Science - Wi 3 s.h.
Prerequisites: COMP 01112 and POSC 07260
This course stresses careful reading and research in primary and secondary material related to selected problems in political science. Primary emphasis will be on writing a critical and analytical paper.

POSC 07490: Seminar In Political Science 3 s.h.
(Open only to senior political science majors) This course stresses careful reading and research in primary and secondary material related to selected problems in political science. Primary emphasis will be on writing a critical and analytical paper.

POSC 07491: Independent Study In Political Science 3 to 9 s.h.
This course focuses on individual projects under the guidance of a faculty member; it cannot be used as a substitute for a course offered by the department. This course may not be offered annually.

PSY 01105: The Psychology Of Ethnic Identity & Community In America 3 s.h.
Prerequisites: PSY 01100 or PSY 01107
This course will facilitate students' development of knowledge and appreciation of racial/ethnic identity formations and their impact on intergroup relations and orientations toward community in America. Students will engage in a variety of individual and collaborative strategies for studying their own and others' racial/ethnic identities, interracial and interethnic relations and the prospects for constructing a sense of pluralistic and egalitarian communities.

PSY 01106: Psychology Of Scientific Thinking 3 s.h.
Prerequisites: PSY 01107
Students will be introduced to the methods of science and the role that science plays in the understanding of how the world works. The development of critical thinking skills and an evidence based approach to evaluating scientific claims will be emphasized. Students will also be introduced to the psychological processes that underlie the scientific method and the persistence of belief in pseudoscientific and non-scientific claims.

PSY 01107: Essentials Of Psychology 3 s.h.
Students will be introduced to psychology, the scientific study of behavior. This course will highlight the key areas in psychology that help to explain human behavior. This course will include discussion of diverse topics such as, perception, learning, thinking, memory, motivation, emotion, stress, and health, personality, physiological processes, psychological disorders and treatment, development, intelligence, and social psychology.

PSY 01200: Psychology Of Women & Cultural Experience 3 s.h.
Prerequisites: PSY 01100 or PSY 01107
This course explores the influence of gender, race, and class in the psychological development and experience of women in cultural contexts. Although it will primarily focus on the lives of women in the United States, an attempt will be made to provide linkage to women's experiences globally. Topics covered will include the role of gender bias in the history of psychology, female personality development, women in the workplace, women's psychosexual issues, and the role of gender in health and wellness.

PSY 01230: Psychology Of Personality 3 s.h.
Prerequisites: PSY 01100 or PSY 01107
Students study major theories of personality and techniques for measuring personality. Personality is that field of psychology that investigates the predispositions or inherited characteristics and the acquired or learned qualities that affect an individual.

PSY 01235: African American Psychology 3 s.h.
Prerequisites: PSY 01100 or PSY 01107
This course introduces students to a critical analysis of the psychosocial development, behavior and relationships of Black people within the sociohistorical context of the United States. It facilitates students' examination of issues relating to methodology and assumptions underlying past and current research on the psychological study of African Americans. The course also enables students to examine theory and research on the effects of significant sociocultural factors on the lives of African Americans, with particular focus on physical development, language and communication styles, models of identity and social-emotional development, intellectual and academic development, sexual behavior and attitudes, health issues, and empowerment.
PSY 01302: Research In Perception - Wi 4 s.h.
Prerequisites: PSY 01104 and PST 07210
This course provides an overview of how the study of perception integrates psychophysics, sensory and physiological psychology, and neuropsychology in an attempt to understand the principles guiding the way in which humans obtain information about the world. Topics include the scientific study of the sensory systems, classical and contemporary psychophysical methods, principles of perceptual organization, aftereffects, perceptual illusions, and the real-world implications of these phenomena. This course contains a laboratory component that emphasizes the use of scientific methodologies in Perception. Only matriculated psychology majors may register for this course.

PSY 01305: Psychology And Law 3 s.h.
Prerequisites: PSY 01100 or PSY 01107
A course in the relationship of psychology and law, this course studies how the law has used psychological concepts and data. It examines legal issues of significance for psychologists and examines psychological research as it relates to the legal process.

PSY 01310: Psychology Of Racism And Ethnocentrism: Causes, Development, Consequences, Solutions 3 s.h.
Prerequisites: PSY 01100 or PSY 01107
This course provides an opportunity for students to develop critical understanding of psychological perspectives regarding the root causes, complex patterns, and the individual, group, and societal consequences of racism and ethnocentrism in the United States of America. The course will draw upon comparative data regarding the psychological factors involved in historic or contemporary race and ethnic relations within selected international contexts to explore parallel and unique cross-cultural phenomena.

PSY 01316: Behavioral Assessment And Measurement 3 s.h.
Prerequisites: PSY 01104 or PSY 01107
This course provides students with the knowledge and skills needed to conduct behavioral assessments and choose appropriate target outcomes and intervention strategies. Additionally, students will learn to objectively measure behavior, display data graphically, and experimentally evaluate the effectiveness of behavioral interventions. This course is one of the courses required for the Specialization in Behavioral Services for Children and Their Families in the psychology department.

PSY 01326: Perception 3 s.h.
Prerequisites: PSY 01104 or PSY 01107
This course involves the study of sensation and perception. Topics include the scientific study of sensory systems, classical and contemporary psychophysical methods, principles of perceptual organization, aftereffects, illusions and space perception.

PSY 01327: Cognitive Psychology 3 s.h.
Prerequisites: PSY 01100 or PSY 01104 or PSY 01107
This course involves the study of information processing. Its topics may include the history and methods of cognitive psychology, selection and processing of sensory information, pattern recognition, memory processes, language acquisition and cognition.

PSY 01329: Health Psychology 3 s.h.
Prerequisites: PSY 01107 or PSY 01100
This course is concerned with the role of biopsychosocial factors in teh promotion of health, prevention of and treatment of illness, the etiology of illness, and ways to improve the health care system. Students will learn widely studied and empirically supported theories of health behaviors in relation to behavioral risk factors. They will focus on theories, assessment and treatment of the primary behavioral problems encountered within behavioral medicine, such as sleep disorders, sexual dysfunction, high risk sexual behaviors, obesity, eating disorders, chronic pain, substance abuse/dependency, and tobacco addiction.

PSY 01419: Independent Study In Psychology .5 to 6 s.h.
Individual educational and research projects including independent study are offered. Student must have approval of faculty instructor before registering for this course. Regular meetings with faculty instructor are required.

PSY 01420: Advanced Research-Wi 3 s.h.
Prerequisites: (PSY 07202 and COMP 01112) or (PSY 07202 and HONR 01112) and matriculation as a Psychology major
Students will complete an empirical research project, including a literature review, conceptualization of the hypothesis, design of the methodology, data collection, statistical analysis, and interpretation of results. The project will be reported in a major research paper. Students will be exposed to ethical review board procedures.
PSY 01422: Field Experiences In Psychology 3 to 6 s.h.
Prerequisites: PSY 01104 and PST 01100 or PST 01107
Because of the limited enrollment in this course, priority is given to psychology majors. It is suggested that the student have a minimum of 60 hours of college credit which should include at least 15 hours in psychology. Students are assigned placements in supervised settings such as community mental health centers, drug rehabilitation centers, crisis intervention facilities and schools.

PSY 01423: Seminar In Psychology: Topics 3 to 6 s.h.
Prerequisites: (PSY 01104 and PSY 01100) or PST 01107
This course enables the faculty to offer substantive courses in specialty areas which are not offered on a regular basis. Students should have substantive preparation in the specialty area of the course.

PSY 01424: Professional Issues In Applied Behavior Analysis 3 s.h.
Prerequisites: PST 02310 and PST 01316 Co-requisite: PST 02305
This course is a capstone course in Specialization for Behavioral Services for Children and their Families, providing an in-depth overview of innovative and empirically validated behavior assessment and intervention techniques aimed at promoting system-wide change. Students will be exposed to professional development as behavior analysts including ethical issues, career options and responsibilities, and development of clinical skills.

PSY 01429: History & Systems In Psychology 3 s.h.
Prerequisites: (PSY 01104 and PST 01100) or PST 01107
This course presents the history of psychology, giving a comprehensive treatment of theories and systems in psychology. The student should have a substantial background in psychology before taking this course.

PSY 02257: Psychology As A Profession And Practice 3 s.h.
Prerequisites: PSY 01.107 or both PSY 01.100 and PSY 01104
This course will introduce students to traditional and emerging applied areas in psychology, with the goal of increasing students' knowledge about how psychological information is used to impact peoples lives. In addition, students will learn how psychological knowledge can be applied in ways that allow us to better understand the individual and the broader social world. Finally, students will explore possible career paths in psychology and learn how to best prepare themselves for a career in psychology or related fields post graduation.

PSY 02305: Applied Behavior Analysis 3 s.h.
Prerequisites: PSY 01100 or PSY 01104 or PST 01107
This course deals with the principles, procedures and utility of behavior modification in normal and clinical settings.

PSY 02307: Research In Cognitive Psychology - Wi 4 s.h.
Prerequisites: PSY 01104 and PST 07210
This course involves the study of information processing. Its topics may include the history and methods of cognitive psychology, selection and processing of sensory information, pattern recognition, memory processes, language acquisition and cognition. A laboratory component is appended to the course, but does not fulfill General Education laboratory requirements.

PSY 02308: Research In Learning And Behavior-Wi 4 s.h.
Prerequisites: PSY 01104 and PST 07210
This course provides an overview of theories of learning and the experimental analysis of behavior. Topics may include classical conditioning, operant conditioning, and schedules of reinforcement. This course contains a laboratory component which emphasizes the use of the scientific method in learning and the experimental analysis of behavior. Only matriculated psychology majors may register for this course.

PSY 02309: Research In Social Psychology - Wi 4 s.h.
Prerequisites: PSY 01100 and PST 07210
This course provides an overview of how individuals affect the thoughts and behaviors of other individuals. It examines social behavior from a multicultural perspective which emphasizes the effects of gender, race, and ethnicity on social interaction. Topics may include social cognition, attitude change, affiliation, conformity, intergroup conflict and cooperation. This course contains a laboratory component which emphasizes the use of the scientific method in social psychology. Only matriculated psychology majors may register for this course.
Course Descriptions

PSY 02310: Learning And Behavior 3 s.h.
Prerequisites: PST 01104 or PST 01107
This course provides an overview of the experimental analysis of behavior with minor attention to other theories of learning. Topics may include classical conditioning, operant conditioning, and schedules of reinforcement.

PSY 03200: Abnormal Psychology 3 s.h.
Prerequisites: PST 01100 or PST 01107
Abnormal Psychology is a division of the science of psychology that investigates disordered behaviors, deficiencies in behavior capacities, and the persons exhibiting them. This course of Abnormal Psychology is concerned with the application of the methods, concepts, principles and findings of psychological research to deviant behavior. It is also concerned with perception, learning, development and social factors as related to disturbed behavior and experiences of individuals.

PSY 03205: Intake And Interviewing Skills In Psychology 3 s.h.
Prerequisites: PST 01100 or PST 01107
This course is designed to prepare undergraduates to be able to perform an initial interview or intake in an entry level, human service position. Topics include basic skill development, understanding of content and process in interviewing, family interviews, use of standard intake procedures, and ethical considerations in interviewing.

PSY 05205: Environmental Psychology 3 s.h.
Prerequisites: PST 01100 or PST 01107 or PST 01104
This course involves the study of people and their physical setting. Its topics include environmental perception and cognition, social processes and the environment, individual development and the environment, contrast between natural and built environment and city and urban design.

PSY 05206: Social Psychology 3 s.h.
Prerequisites: PST 01100 or PST 01107
This course examines the psychological, social and cultural factors that shape the social behavior of the individual. It investigates such topics as affiliation, conformity, leadership, group processes; attitude formation and change; intergroup cooperation and conflict. The primary focus is on the individual in social context.

PSY 05310: Psychology Of Human Sexuality 3 s.h.
Prerequisites: PST 01100 or PST 01104 or PST 01107
This course provides an overview of the current scientific knowledge concerning human sexuality. It examines data from national surveys and controlled laboratory studies.

PSY 05402: Psychology Of Conflict And Conflict Resolution 3 s.h.
Students investigate the basis for conflict in social and personal situations. The course attempts to isolate a number of contributive variables and explores possible alternatives to destructive conflict. It employs different research approaches and attempts to help interested students examine and develop innovative approaches to use in the resolution of conflict within social relationships.

PSY 05410: Community Psychology 3 s.h.
Prerequisites: PST 05206 and PST 01107 or PST 05206 and PST 01100
This course provides an overview of the field of community psychology. Its topics will include preventive approaches to mental health, crisis intervention, community-based treatment approaches, systems theory, community mental health centers, organization theory, paraprofessionals, the use of self-help groups and community psychology in the schools and criminal justice system. The course provides a conceptual framework for community psychology.

PSY 06300: Psychological Tests And Measurements 3 s.h.
This course examines the nature and use of psychological tests and the social and ethical implications of testing. It emphasizes principles of test construction: reliability, validity and item analysis. Statistics should be completed before or concurrently with this course.

PSY 07201: Research Methods In Psychology 4 s.h.
Prerequisites: (PST 01107 or PST 01104 or PST 01100) and PST 01106
This course addresses research design and methodologies for data collection in psychological research. Observation, correlational, and experimental techniques are studied. Also examined are ethics in research and responsible interpretation of research results.
Course Descriptions

PSY 07202: Statistics In Psychology 4 s.h.
*Prerequisites: PSY 07201 and STAT 02260*
This course focuses on the many statistical procedures used in psychological research. Students will learn to select and calculate appropriate procedures to analyze both quantitative and qualitative data. They will gain an understanding of how to select and perform descriptive, correlational, and inferential procedures. There will also be emphasis throughout the course on learning to use statistical software.

PSY 08215: Consumer Psychology 3 s.h.
*Prerequisites: PSY 01100 or PSY 01107*
This course introduces behavioral science research and methods in consumer behaviors. It emphasizes the processes of learning, perception, motivation, and social behavior and their effect on consumer attitude, buying behavior, advertising and effective mass persuasion. The course also includes product design and evaluation and consumer protection and awareness.

PSY 08220: Personnel Psychology 3 s.h.
*Prerequisites: PSY 01100 or PSY 01107*
This course introduces the application of psychological principals and research findings in the personnel systems of organizations. Its topics include personnel testing and selection; instrument development; job analysis and evaluation; performance appraisal; training systems, and the models for human resource utilization.

PSY 08310: Industrial/Organizational Psychology 3 s.h.
*Prerequisites: PSY 01100 or PSY 01107*
This course studies application of psychological theories, methods, principles and findings to various problems of industrial, business and public organizations. It covers personnel selection, testing, and training; organizational behavior; safety, equipment and systems design, and consumer behavior.

PSY 09209: Child Development 3 s.h.
The content of this course includes the physical, cognitive, perceptual, linguistic, emotional, and social development of the child. Both the stages of development within each of these domains and the biological and sociocultural mechanism underlying the development are emphasized. This course is intended for nonmajors and will not fulfill requirements of the Psychology majors. Psychology majors must take lifespan development PSY 01308 in order to fulfill the requirements of the major. This course is intended for nonmajors and will not fill requirements of the Psychology major. Psychology majors must take Lifespan Development (PSY 01308) in order to fulfill the requirements of the major.

PSY 09210: Adolescent Development 3 s.h.
This course studies current theory and practice related to biological, cognitive, psychoanalytic, psychosocial, sexual and moral development in adolescence. Students gain experience in developing beginning levels skills in selection and use of evaluative techniques and in the use of activities appropriate to the various levels of adolescent development. This course is intended for nonmajors and will not fulfill requirements of the Psychology major. Psychology majors must take Lifespan Development (PSY 01308) in order to fulfill the requirements of the major.

PSY 09218: Lifespan Development 3 s.h.
*Prerequisites: PSY 01100 or PSY 01104 or PSY 01107*
This course provides an overview of human development across the lifespan, including physical, cognitive, social, and personality development. All the major lifespan developmental theories and research will be presented, with heavy emphasis on students’ critical thinking about research. This course will cover both normative and atypical development across the lifespan, including the major physical, mental health, and social problems occurring during the life span.

PSY 09305: Developmental Psychopathology 3 s.h.
*Prerequisites: PSY 01100 or PSY 01107*
Using a developmental framework, the student will examine normal and abnormal behavior from infancy through adolescence. Students will learn about the pathways to normal and abnormal behavior, explore the factors that place children at risk for problems as well as the factors that protect children from adversity. Topics will include autism, depression, anxiety, aggression, attentional difficulties, developmental delay, and physical illness.

PSY 10315: Physiological Psychology 3 s.h.
*Prerequisites: PSY 01100 or PSY 01104 or PSY 01107*
An introductory course in physiological psychology designed to give the student an understanding of the neural processes mediating behavior. A study of advances in such areas as the neural coding of memory and learning; control of human behavior and emotions through physiological changes; the environment as it affects the nervous system; psychobiology of sex; psychosomatic illness; and instrumentation and techniques for investigating problems in physiological psychology.
PSY 10380: Cognitive Neuroscience 3 s.h.
Prerequisite(s): B+ or higher grade in PSY 10315, or Permission of Instructor.
This course examines the neurological bases of the mind and mental processes. Topics will include the historical bases of thought and mind, anatomical foundations of thought at the systems and neural levels, methods for testing mental processes, and subject areas encompassing perception, attention, memory, development, change, and disease. Students will be required to contribute to class discussions, present summaries of major theories and findings to the class, and critically assess current opinions and techniques used in the field.

PSY 22215: Educational Psychology 3 s.h.
Prerequisites: PSY 01100 or PSY 01104 or PSY 01107
This course considers the fundamental principles of learning and the implications of these principles for the understanding of human behavior. It covers empirical and theoretical issues in learning through examination of laboratory data and their extension to life situations.

PSY 22320: Theories Of Learning 3 s.h.
This course deals with several major learning theorists and their work. Students critically describe, explain and integrate research findings. This course is generally recommended by graduate schools.

ADV 04330: Introduction To Advertising 3 s.h.
Prerequisite(s): Public Relations/Advertising Major or Advertising Minor, 30 credit hours
The course provides an overview, including techniques and terminology that are useful in the professional world. Topics include history of advertising, marketing, ethics, law, consumer behavior, print and electronic media, and retail and corporate advertising. The course combines theory of advertising with practical applications.

ADV 04352: Advertising Strategies 3 s.h.
Prerequisites: ADV 04375 and PR 06310
This course explores the methodologies and tactics involved in planning advertising campaigns. Students examine research sources, strategic planning techniques, media placement, copywriting & testing. Students will review presentation techniques, theme-within-a-theme and other related strategic thinking.

ADV 04355: Advertising Practicum 1 to 3 s.h.
Prerequisites: 75 Credits Required
Advertising practicum allows students to apply their skills and knowledge by working on campus with department faculty on a variety of technical, creative, or research-related assignments. Students can earn 1 credit for every 40 hours of work, with most practica implemented for 3 credit hours. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum and submit the work to the faculty supervisor for grading.

ADV 04360: Integrated Marketing Communication 3 s.h.
Prerequisites: PR 06350 and ADV 04330
This course explores the expanded as well as the communication portion of the organization's business and marketing plans. Emphasis is placed on how to translate marketing strategies into a well-defined and seamless communication program directed at all of the organization's publics.

ADV 04375: Advertising Copywriting 3 s.h.
Prerequisite: ADV 04330
This course introduces students to creative writing in advertising. It will explore the basic principles of writing copy and developing creative products for print and electronic vehicles.

ADV 04405: Independent Study - Advertising 1 to 6 s.h.
Prerequisites: ADV 04330 and PR 06310 and ADV 04375
This course will provide students practical application of creativity in advertising. It covers a range of topics including the nature of creativity and the application of creative strategy to various media. By the end of the term, students will develop and produce finished campaigns that will provide a well-defined portfolio.

ADV 04421: Account Planning 3 s.h.
Prerequisites: ADV 04330 and PR 06310 and ADV 04375
This course will explore the role of account planning and its contribution to developing strategic advertising campaigns. Students will learn to review and interpret qualitative and quantitative research and to translate this research into valuable consumer insights.
ADV 04432: Media Planning 3 s.h.
*Prerequisite(s): ADV 04421 or ADV 04420 and ADV 04330*
Students study media as social and economic forces in our society; the course examines major media with emphasis on comparative value in regards to cost, audience, production problems, time factors, product stability and cost effectiveness. Students get considerable actual practice in media planning activities. A research unit is included.

ADV 04434: Advertising Campaigns - Wi 3 s.h.
*Prerequisites: ADV 04352 and ENGL 01112*
This course prepares students to undertake and complete an extensive, creative, effective professional advertising campaign. The course includes instruction on how to prepare the speech which is made when the campaign is pitched to the client, extensive marketing and advertising research, final polishing of copywriting skills and a well prepared final oral presentation.

PR 01403: Special Topics In Public Relations 1 to 3 s.h.

PR 06101: Basic Public Relations Writing 3 s.h.
Basic Public Relations Writing introduces students to the tasks of writing and editing required in a public relations position. Students will learn to write for both print and electronic media, develop their skills in grammar, syntax and usage and learn to copy edit their own work and the work of others.

PR 06103: Writing Basics In Public Relations And Advertising 1 s.h.
Writing Basics in PR and Advertising is a 5-week writing boot camp that helps students to better transition into more advanced forms of public relations writing. The course helps polish students' writing and provides an overview of grammar and usage rules along with sentence structure, organization, and proofreading.

PR 06105: Advanced Public Relations Writing 3 s.h.
*Prerequisites: PR 06101 with a grade of B- or better*
Advanced Public Relations Writing polishes writing and editing skills students need for a professional public relations position. Students will learn how to write persuasive copy for both internal and external audiences, produce written marketing support products, and prepare speeches and advanced editorial copy for business and organizations. Students will also learn advanced copy preparation techniques.

PR 06110: Introduction To Public Relations/Advertising Research 3 s.h.
*Prerequisites: 60 credits required*
The course studies both qualitative and quantitative research methods necessary for success in the fields of public relations and advertising. Emphasis is placed on evaluation of secondary searches, individual and group interviews, media audience measurements, market structure, segmentation and usage studies, and tracking studies.

PR 06150: Introduction To Public Relations 3 s.h.
*Prerequisite(s): Public Relations/Advertising Major*
This course explores the history and role of public relations in society. Students explore mass media, persuasion, publicity, radio and television. Students examine special events, crisis management, communication techniques, research and evaluation, communication law and ethics. Basically a theory course, this introduction also applies ideas practically to real clients and organizations.

PR 06353: Case Studies In Public Relations - Wi 3 s.h.
*Prerequisites: PR 06305 and PR 06310 and COMP 01112*
This course reviews and predicts how organizations solve their public relations challenges. Students write case statements, position papers and solutions involving publicity demands, special events, promotions, image problems and other challenges. Students role-play key personnel, working through problems in seminar simulations. Writing, speaking, thinking and presenting ideas are emphasized.

PR 06354: Impact Of Public Relations On The News 3 s.h.
*Prerequisites: PR 06301 or JRN 02310*
The course is a semester-long journey into the information management world where the professions of journalism and public relations often find strong parallels but equally as often are locked in competition over how important local, national and world events and issues will be reported and explained to the public.
PR 06355: Public Relations/Advertising Law and Ethics 3 s.h.
Prerequisites: (PR 06350 and PR 06301) or (ADV 04330 and ADV 04375)

The course will give students a broad perspective into law and ethics as they relate to the public relations and advertising professions. Specifically, the course will familiarize students with the “Code of Professional Standards” of the Public Relations Society of America and with major laws governing advertising, broadcasting, publishing and speaking. The course will also focus on First Amendment Law and examine business case law that pertains to public relations and advertising. Students will develop ethical stances about communication and will improve in judging ethically unclear situations.

PR 06359: Public Relations Practicum 1 to 3 s.h.
Prerequisites: 75 credits required

Public relations practicum allows students to apply their skills and knowledge by working on campus with department faculty on a variety of technical, creative, or research-related assignments. Students can earn 1 credit for every 40 hours of work, with most practica implemented for 3 credit hours. Students can earn credit for working for PRAction, Rowan University's in-house agency for its Public Relations Student Society of America Chapter. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum and submit the work to the faculty supervisor for grading.

PR 06360: Public Relations/Advertising Internship I 3 s.h.
Prerequisites: Public Relations or Advertising major with Major GPA of 2.5 and (PR 06301 and PR 06305) or (ADV 04375 and ADV 04421) or ADV 04420

Under professional supervision in the field, students practice theories and skills learned in the classroom. Students earn 3 credits for 120 hours of work. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum, and are evaluated by their faculty supervisor.

PR 06362: Public Relations/Advertising Internship II 3 s.h.
Prerequisites: Public Relations or Advertising major with Major GPA of 2.5 and (PR 06301 and PR 06305) or (ADV 04375 and ADV 04421) or ADV 04420

Under professional supervision in the field, students practice theories and skills learned in the classroom. Students earn 3 credits for 120 hours of work. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum, and are evaluated by their faculty supervisor. Field Experience II is offered to students who successfully complete Field Experience I and who seek to get an additional 3 credits of internship experience.

PR 06364: Public Relations/Advertising Internship III 6 s.h.
Prerequisites: Public Relations or Advertising major with Major GPA of 2.5 and (PR 06301 and PR 06305) or (ADV 04375 and ADV 04421) or ADV 04420

Under professional supervision in the field, students practice theories and skills learned in the classroom. Students earn 6 credits for 240 hours of work. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum, and are evaluated by their faculty supervisor. Field Experience III is reserved for students who wish to complete all 6 credits of their 240-hour internship with the same sponsor.

PR 06405: Independent Study 1 to 6 s.h.

PR 06454: Public Relations Planning - Wi 3 s.h.
Prerequisites: PR 06353 and COMP 01112

This course introduces students to the components of a comprehensive public relations campaign: research, audience identification, message construction, channel selection and evaluation. Working with clients, students create and write an entire program for a variety of challenges, including image change, new product or service introduction, information, recruitment, crisis management, employee relations, persuasion and others. Students practice a complete PR plan.

PR 99162: Public Opinion 3 s.h.
Prerequisites: PR 06310

This course includes the nature and role of public opinion, the dynamics of public opinion processes and the numerous factors which shape or influence opinion. Students examine the mass media, evaluating their roles as molders and reflectors of public opinion. Major topics that influence public opinion are discussed, including gratifications, agenda setting, knowledge gaps, censorships and propaganda.

RTF 01402: Special Topics 3 s.h.
The course is designed to provide students with a basic understanding of how to produce a radio news program and developing a radio documentary. Students will gain an understanding of how to produce a radio news program by working with The Rowan Report, a half-hour news show that airs on WGLS-FM, on a weekly basis during the semester. Students are expected to serve as producers and on-air talent for the show. Also, they will gain hands-on experience with Metro Source, a news-gathering system used by Rowan Radio and audio editing software.

**Prerequisite(s):** COMP 01111

TV History and Appreciation explores 50 years of the art and impact of one of the most persuasive, pervasive information delivery systems ever invented. By viewing and discussing a wide array of clips and full episodes of programming (many from the earliest days of the medium), students will develop an appreciation of the foundation of all entertainment and informational programming. As well, students examine how television has affected American society and how American society has affected television.

**Prerequisites:** COMP 01111 and COMP 01112 and 45 earned credit hours

Students will explore television’s formative years. The course is a sequel of sorts to the earlier course, but can be taken independently or concurrently. Students will learn about and discuss the cultural, economic and regulatory decisions that shaped the medium and analyze TV’s changing portrayal of the American family, gender roles, minority representation and other key concepts. The history of breaking news coverage, the emergence of cable, and the rise and fall of various programming genres - from live TV drama and the variety show to newsmagazines and reality TV - will be examined.

**Prerequisite(s):** COMP 01111

Designed to provide students with an understanding of the contemporary American commercial television industry, this course analyzes the interrelationships among broadcast and non-broadcast delivery systems, stations, networks, programming, advertising, audiences and the federal government.

**Prerequisite(s):** COMP 01111

This course introduces students to the principles and techniques of commercial radio broadcasting. Students learn about licensing, sales, research, programming, and federal regulations. Students get hands-on experience with up-to-date broadcast equipment while learning audio console operation.

**Prerequisite(s):** RTF 03275

The course introduces students to the principles and techniques of TV production. Students work in production teams within a professional television studio setting. Students gain experience in all phases of production, including conception of ideas, scripting, directing, and operation of equipment to produce various types of programs. Programming includes newscasts and talk shows. Students also learn to edit 30-second commercials and PSAs.

**Prerequisites:** COMP 01111 and COMP 01112 and RTF Major

This course introduces students to the production process through the medium of sound. Topics include the history, physics, and function of sound recording as it relates to radio, television, and film media. Students will be introduced to basic storytelling concepts and will write, create, and edit projects that incorporate sound as a primary communication tool.

**Prerequisite(s):** COMP 01111

Students trace the development of motion pictures as an art form from the 1890s to 1941. Representative selections from the various genres are screened, then discussed in terms of art, technique, content and historical perspective, as well as directorial style. Part I is not a prerequisite for Part II; these courses may be taken in any order; students may opt for one or both courses.

**Prerequisite(s):** COMP 01111 and COMP 01112

This course is a continuation of RTF 03.270 with emphasis on contemporary genres and implications. Students trace the modern cinema from 1941 to the present. Students may take Part II prior to Part I; although the content is chronological, Part I is not a prerequisite for Part II.
Course Descriptions

RTF 03272: Images Of Women In Film 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
This course uses the medium of motion pictures to study cultural perspectives on women at various times through history and in differing cultural environments. Students discuss a wide range of film treatments to examine women's changing role, as well as social attitudes toward women as expressed by representative works of a cultural era and by writers, directors and actors.

RTF 03273: The Movie Industry 3 s.h.
Prerequisite(s): COMP 01111
This course introduces students to the language of the technical elements of the motion picture and to a method for analyzing the artwork created and the messages communicated by the motion picture. Students analyze the components of motion pictures including color, lighting, editing, scripting, directing and acting.

RTF 03275: Applied Media Aesthetics: Sight, Sound And Story 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
This course offers students an introduction to the aesthetic concepts as applied directly to radio, television, and film media. Using examples from these media, students will study, discuss, and analyze design and composition elements as they apply to the production process. A basic vocabulary of aesthetic terminology will be assembled and students will be responsible for understanding and applying those terms through various written and visual assignments.

RTF 03280: African American Film History 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
This course offers students an introduction to the little-known yet important area of African American Film History, beginning with the development of Race Movies by such directors as Oscar Micheaux, and continuing to the present day. Through lectures, screenings and reports students will study, discuss and analyze the historical and cultural significance of these films and their influence on society.

RTF 03294: Contemporary International Cinema 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
Contemporary International Cinema is designed as a basic introduction to world cinema, defined as the film output of other nations, regions and non-Hollywood cinema. Students will examine the major filmmakers, production and distribution practices of the global filmmaking community. Students will explore definitions of national and transnational cinema, issues of representation and post-colonialism, and concepts of authorship and genre from a global perspective. Students will gain a critical awareness of the ways in which cinema shapes our attitudes or perceptions of other cultures, and an appreciation of cinematic representations that originate from within other cultures. Through readings, discussion, screenings and research, students will gain a broader perspective of the current state of film as an art form, a globalized industry and cultural products.

RTF 03295: Introduction To New Media 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
Introduction to New Media surveys emerging digital communication and entertainment media and teaches new media from the perspective of the producer. Students will discuss the evolution, social and historical implications, and production of media forms with an emphasis on social networking, user generated and other web media.

RTF 03321: Television Production II 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and RTF 03224 and RTF 03275 and RTF 03220 and RTF 03222 and RTF Major
This hands-on course provides experience in advanced television production. Students work in production teams which create, research, script, shoot, and edit one-minute promotional pieces and a 30-minute magazine program. All programming airs on Rowan's cable network, Channel 5. Students will shoot in the studio and in the field, learning to use digital production equipment in preparation for professional career work in television. All projects are edited on Avid editing systems.

RTF 03331: Radio Broadcasting II 3 s.h.
Prerequisites: RTF 03224 and RTF 03275
Radio Broadcasting II is designed to develop the skills obtained in Radio I by increasing the knowledge about various audio devices. Shows developed in Radio II will be scheduled as a regular part of the WGLS-FM programming. Topics covered will further enhance the students' understanding of audio production and the associated equipment and develop announcing skills vital not only to radio, but to all forms of audio/visual presentation.
RTF 03335:  A/V Production Systems  3 s.h.
*Prerequisites: RTF 03221 or RTF 03222*
This course expands students’ knowledge of audio and video production equipment and its specific application in production and post-production facilities. Students learn the principles of audio and video measurement, editing requirements and equipment interfacing. Students will understand future trends and the impact of A/V Technology on industry economics. Demonstrations are applied to classroom experiences. This course may not be offered annually.

RTF 03340:  Rtf Research & Criticism  3 s.h.
*Prerequisites: CMS 06202 and COMP 01112 and 75 credits required*
This course studies the range and importance of research and criticism in the Radio, Television and Motion Picture industries. Academic models of research and criticism are investigated as are industry practices like demographics and ratings. Students inform their perspective of RTF as professionals and members of electronic media and cinema’s global audience.

RTF 03350:  Rtf Practicum  3 s.h.
*Prerequisites: 75 credits required*
RTF Practicum gives students the opportunity to test their skills and knowledge of the field while working on campus with department faculty and professional staff on a variety of technical, creative and/or research related assignments. Students can earn 3 credit hours for 120 hours of work on Practicum-related assignments.

RTF 03351:  Rtf Internship I  3 s.h.
*Prerequisites: 75 credits required and Radio/TV/Film major*
Students earn 3 credit hours for 120 hours of field experience on the job in a Radio, Television or Film professional setting. The students will fulfill a wide range of duties described by the on-site supervisor and agreed to by both the student and the on-campus faculty supervisor. Students may take up to 6 credit hours of field experience.

RTF 03352:  Rtf Internship II  3 s.h.
*Prerequisites: 75 credits required and Radio/TV/Film major*
Students earn 3 credit hours for 120 hours of field experience on the job in a Radio, Television or Film professional setting. The students will fulfill a wide range of duties described by the on-site supervisor and agreed to by both the student and the on-campus faculty supervisor. Students may take up to 6 credit hours of field experience.

RTF 03353:  Rtf Internship III  3 s.h.
*Prerequisites: 75 credits required and Radio/TV/Film major*
Students earn 6 credit hours for 240 hours of field experience on the job in a Radio, Television or Film professional setting. The students will fulfill a wide range of duties described by the on-site supervisor and agreed to by both the student and the on-campus faculty supervisor. Students may take up to 6 credit hours of field experience.

RTF 03354:  Rtf Internship IV  3 s.h.
*Prerequisites: 75 credits required and RTF major and COMP 01112 and RTF 03222 and RTF 03370*
Students earn 3 credit hours for 120 hours of internshp experience on the job in a Radio, Television or Film professional setting. The students will fulfill a wide range of duties described by the on-site supervisor and agreed to by both the student and the on-campus faculty supervisor.

RTF 03370:  Film Production I  3 s.h.
*Prerequisite(s): RTF 03275*
The course introduces students to the principles and techniques of film style production. Students work in production teams to make a series of short films designed to familiarize them with film production techniques including camera operation, shot composition, and editing. In addition students gain experience applying basic cinematic narrative concepts.

RTF 03371:  Film Production II  3 s.h.
*Prerequisites: COMP 01111 and COMP 01112 and RTF 03224 and RTF 03575 and RTF 03370*
This is an intermediate synch-sound 16mm production course which emphasizes studio production techniques. Students work in crews on short dialogue scenes designed to familiarize them with directing, script analysis, art direction, color cinematography, lighting, and synch-sound digital editing.

RTF 03372:  American Film Directors  3 s.h.
*Prerequisites: 45 credits required*
Through historical perspective and criticism, this course provides an in-depth study of films by American directors. This course may not be offered annually.
Course Descriptions

RTF 03373: Film Noir 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and 60 earned hours
Film Noir is designed as an advanced film history course to explore the dark cinematic style and crime genre of Film Noir. Students will examine major filmmakers, production, distribution practices and reception of film noir. Through readings, discussion, screenings and research students will gain a broader perspective of how this cinematic cycle changes over time, the production conditions in the classical Hollywood studio system, the industrial considerations and censorship constraints, and how films grew out of earlier film history and cinematic movements overseas and in the United States.

RTF 03380: Acting For The Camera 3 s.h.
Prerequisites: COMP 01112 and RTF 03370 or COMP 01112 and RTF 03222
This course is a basic introduction to acting in front of film and television cameras. Students will study acting styles, techniques, and theory. Each student is expected to act in at least three separate scenes that will be videotaped and critiqued.

RTF 03393: Film Scenario Writing - Wi 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
The course covers the basic technical requirements for writing movie scripts and the problems of adapting material to screen and script analysis. By viewing contemporary movies and studying plotting, point-of-view, character creation and dialogue, students learn how a film script is put together and write an original script.

RTF 03394: New Media Production 3 s.h.
Prerequisite: RTF 03295
This is the second in a sequence of three courses in the Interactive Media specialization. Students will apply content production skills from radio, television, and film to the production of hybrid media. Students work in teams to plan, design, produce, and test multimedia products. Students are expected to demonstrate a high level of professionalism in completing all work on schedule to professional standards and in their interactions.

RTF 03395: Sound Communication II 3 s.h.
Prerequisites: RTF 03224 and RTF 03275
Sound Communication II will provide students with advanced concepts and practices of sound recording and editing, focusing on their application for the media of film and television. Students will explore historical and aesthetic practices of sound effects and music for film and television, directing those concepts towards the production of the sound design of a student film.

RTF 03420: Current Issues In Electronic Media 3 s.h.
Prerequisites: RTF 03220 and COMP 01112
This course analyzes and discusses the impact that current trends in media technology, economics, regulation, and management have on content development, distribution, acquisition and consumer use.

RTF 03433: Television Program Packaging - Wi 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
This research and writing course focuses on the specialized field of TV program creation. Students study the structure and content of a wide variety of TV programs, analyzing target audiences, and examining the marketing structure of program selling and distribution. Students prepare a complete, original television program proposal as a required activity.

RTF 03434: TV Program Packaging 2 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and RTF 03220 and RTF 03433
This course builds on the writing skills learned in TV Program Packaging 1. The course is designed to provide students with an advanced opportunity to practice and deepen their episodic television script writing skills to help them prepare to embark upon a career in professional television scriptwriting. Students will gain experience working in a writer’s room dynamic for a full semester, pitch a pilot idea and develop it within their group, develop scene building and dialogue writing skills, and craft a 13 episode television show arc together with each student writing 1 - 2 full scripts to build their season.

RTF 03450: Television Documentary And Field Production 3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and RTF 03224 and RTF 03275 and RTF 03220 and RTF 03221 and RTF 03220 and RTF Major
This advanced production course combines extensive research and scriptwriting skills with sophisticated field production techniques. Students select subjects of local interest to feature in high-quality, 20-minute documentaries involving pre-production planning, actual videotaping and post-production editing. Field production includes use of single and multiple camera units.
Course Descriptions

RTF 03470: Advanced Film Production  3 s.h.
Prerequisites: COMP 01111 and COMP 01112 and RTF 03224 and RTF 03275 and RTF 03370 and RTF 03371
This is an advanced synch-sound 16mm production course which emphasizes professional production practices. Students participate in the planning, shooting and editing of a longer-form narrative synch-sound film project designed to familiarize them with pre-production planning, production scheduling, large crew management, and post-production supervision.

RTF 03471: Techniques Of Documentary Film Production  3 s.h.
Prerequisites: RTF 0370 OR RTF 0370 OR RTF 0370 OR RTF 03220
This course introduces students to the study of documentary form and techniques of production. It provides students with an understanding of the styles and methods of the documentary, giving students a powerful tool for film expression. Students will create a researched proposal for their own documentary.

RTF 03472: New Media Production 2  3 s.h.
Prerequisites: RTF 03295 and RTF 03394
This course will build upon skills and techniques introduced in New Media Production 1. Students will produce advanced, hybrid/interactive media projects. Students work in teams to plan, design and produce multimedia projects and are expected to demonstrate a high level of professionalism in completing all work on time and to professional standards.

ANTH 02202: Introduction To Cultural Anthropology  3 s.h.
This course presents cultural anthropology as a coherent system of data and theory designed to explain the variety of human group behavior, giving special emphasis to the structure and function of non-western cultures.

ANTH 02203: Introduction To Archeology  3 s.h.
This course covers the rudiments of archeological field techniques, methods of analysis and dating methods.

ANTH 02210: Natives Of South America  3 s.h.
The pre-history and cultures of native South Americans are examined in this course via the archeological record and ethnographic accounts. The concepts of culture, cultural evolution, and adaptation are emphasized while undertaking a comprehensive survey of the diverse native South American societies and their environments. This course is offered annually.

ANTH 02215: Medical Anthropology  3 s.h.
Prerequisites: ANTH 02201 or BIOL 01100
Medical anthropology surveys the cultural, genetic and environmental factors that influence the development of human disease, the history and distribution of illnesses and the culturally prescribed varieties of medical treatment and health-promoting behaviors. Students will gain an understanding of the important influence that social behavior and commonly-held beliefs have on the course of illness and its cure. This course may not be offered annually.

ANTH 02221: Human Variation  3 s.h.
In this course, the genetic, immunological, anatomical and physiological variation among modern populations of humans across the globe is examined. The course will enable students to explain human biological adaptation to the biocultural environments in which they live, as well as to understand environmental influences on the human life cycle such as on fertility, growth, and longevity. No prerequisites

ANTH 02250: Introduction To Anthropological Linguistics  3 s.h.
Students in this interdisciplinary course will engage in the scientific study of language with particular reference to the relationships among the languages, thoughts, and cultures of speech communities living all over the world, including within the United States, France, India, Canada, Spain, Japan and Peru, among others. Additional course topics include the process of human language acquisition, structures of human language, bilingualism and the ways in which race, class, gender, and other social characteristics may be displayed through the use of language. This course is offered every other year, beginning in 2009.

ANTH 02270: New World Archaeology  3 s.h.
Prerequisites: ANTH 02203
This course covers the prehistoric and early historic cultural adaptations of the native peoples of the Americas. Emphases will be placed upon: current research trends and findings particularly in the last three decades; prehistoric cultural ecology; culture change and culture process; and current new and traditional controversies, from the earliest Native American hunter-gatherers to settled societies, animal and plant domestication, to the impact of colonization, and the impact of archaeological conservation. Students will research articles on discoveries and debates, prepare a research report, and apply learned archaeological methods in a simulated excavation. This course may not be offered annually.
ANTH 02290: Museum Studies 3 s.h.
This course provides an introduction to the history, purposes, and internal workings of museums from an anthropological perspective. Students will learn how museums that focus on natural history and cultural history related to the anthropological studies of archaeology, human evolution, and world ethnography operate in both physical museum exhibit space and virtually on the worldwide web. It will cover the relevance of anthropological training to careers in the museum field, as well as the importance of conducting anthropological investigations in the museum environment. This course may not be offered annually.

ANTH 02301: Human Evolution 3 s.h.
Prerequisites: One of the following: ANTH 02201, ANTH 02221, BIOL 02100, BIOLO1.104, BIOL 01110, BIOL 01115, BIOL 01310
Students of Human Evolution will study anthropological genetics and, evolutionary theory, basics of primate and human skeletal anatomy, dating and excavation techniques and the fossil evidence of hominid evolution from 7 million years ago to the present. Recent discoveries and controversies will be discussed and evaluated. The course will be offered annually.

ANTH 02310: Indians Of North America 3 s.h.
This is an ethnographic and archaeological survey of the native peoples of North America, emphasizing cultural diversity and adaptation. The course will cover the time span from the settling of North America to the present. It analyzes the present-day problems of reservation life, the contributions of Native Americans, and the Native American’s place in society. Students will analyze issues affecting Native North Americans.

ANTH 02311: People And Cultures Of Africa 3 s.h.

ANTH 02312: Anthropological Perspectives On Physical Growth And Development 3 s.h.
Prerequisites: BIOL 01110 or BIOL 10210 or ANTH 02201
This course will introduce students to anthropological perspectives on the study of the human life cycle, examining how environmental conditions as well as cultural beliefs and practices affect physical, cognitive, and social development throughout the lifespan. Students will also learn about unique traditions of societies around the world regarding pregnancy, childbirth, infancy and childhood, parenting, adolescence, adulthood, middle-age, and aging. This course is offered annually and will be of particular value to students planning to work in psychology, education, nursing, social work, or medicine.

ANTH 02315: Forensic Anthropology 4 s.h.
Prerequisites: ANTH 02201 or BIOL 10210
Forensic Anthropology employs the methods of physical anthropology and archeology to identify human skeletal remains. Proper excavation technique for recovery of remains in order to fulfill the requirements of the legal system will be taught. Students will learn to determine age, sex, height, life history, cause of and time since death and population affinity from the human skeleton. There is a weekly Friday morning laboratory session in addition to classes. A weekend day-long excavation is required. Grading is based on homework, a case report, performance on exams and a final paper. This course may not be offered annually.

ANTH 02321: Cultural Ecology 3 s.h.
Prerequisites: ANTH 02202
This course examines the relation of human groups to their environments as mediated by culture. It emphasizes the interaction of significant variables in the natural habitat, technology, and social institutions. This course may not be offered annually.

ANTH 02322: Sex And Sex Roles In A Cross Cultural Perspective 3 s.h.
Prerequisites: ANTH 02202
This course examines the impact of sexuality on the structure of human cultures, and on how sexuality and gendered behavior are expressed and employed in different cultural contexts. This course may not be offered annually.

ANTH 02323: Anthropology Of Magic And Religion In Primitive, Tribal, And Peasant Cultures 3 s.h.
This course examines the diversity of magical and religious beliefs in human cultures and explores how religious systems are interconnected with environment, economics, politics, and family structures. Course material emphasizes use of a comparative approach to explore the relationship between culture, magico-religious practices, and spirituality. The course will be offered annually.

ANTH 02324: The Maya 3 s.h.
Prerequisites: ANTH 02202 or ANTH 02310
This course traces the development of Maya culture from its earliest archaeological evidence to the eve of Old World contact, focusing on its adaptation to a variety of ecological settings, its interaction with other mesoamerican cultures, the development and transformation of city states, Mayan cosmology and world view, and the development of an indigenous system of writing. This course may not be offered annually.
ANTH 02350: Comparative Cultures 3 s.h.
Students conduct a survey and comparative study of a variety of cultures around the world, analyzing both cultural forms and the methods used by anthropologists to study them. This course may not be offered annually.

ANTH 02371: Anthropological Approaches To Culture Change 3 s.h.
Prerequisites: ANTH 02202 or SOC 08120
Using a sociocultural approach emphasizing both the theoretical and applied aspects (i.e. the "anthropology of development"), this course promotes awareness of the complexities involved in efforts to implement "development" and "progress," especially in the Third World. Recommended for students considering careers with multinational corporations, foreign service, U.N., etc. This course may not be offered annually.

ANTH 02420: Culture And Personality 3 s.h.
This course explores how the culture into which an individual is born influences the development of that person's personality and sense of self. Course material is grounded in a cross-cultural comparative approach to understanding perception, emotion, and behavior. Child-rearing practices, psychological functions of art and religion, and various culture's responses to deviant behaviors will also be explored. This course may not be offered annually.

ANTH 02491: Independent Study In Anthropology 3 s.h.
Students have an opportunity to pursue individual specialized topics under the guidance of a staff member. This course may not be used as a substitute for a course offered by the department. This course may not be offered annually.

ANTH 02492: Undergraduate Research Seminar In Anthropology: Special Topics 3 s.h.
Students participate in planning a research project, collecting data and preparing a report suitable for publication. Subjects of research (e.g., applied anthropology, Egyptology, theory, current issues and controversies, visual anthropology) are selected according to student interest. This course may not be offered annually.

SOC 08120: Introduction To Sociology 3 s.h.
Prerequisites
This course analyzes the characteristics of social organization and focuses on the study of social relationships and interaction. It examines the social basis of behavior patterns, the nature of social problems and the possibilities for social change. (Required for Sociology majors)

SOC 08121: Introduction to Sociology for Premed Students 3 s.h.
Prerequisite(s): None
This course provides students with a general understanding of the theoretical, conceptual, and methodological approaches to studying people in groups, institutions, societies and interpersonal interaction. It examines some of the realities of everyday life and critically analyzes perceptions of these social phenomena. Special attention is given to understanding social phenomena with particular relevance to health and medicine, as well as a wide range of other social arenas.

SOC 08220: The Sociology Of The Family 3 s.h.
This course examines the relationships between the family and other societal institutions as well as the related interaction patterns within the family, both from an historical and a cross-cultural perspective. The course also includes such specific topics as gender roles, women's movement, sexuality and social class differences.

SOC 08221: Social Problems 3 s.h.
This course examines major social problems in the society as a part of the ongoing social process, with particular reference to their economic, political and other social roots. Topics covered can include such areas as mental illness, poverty, structured inequality, various forms of addiction, war, racism and crime.

SOC 08223: The Sociology Of Social Welfare 3 s.h.
Prerequisites: SOC 08120
This course examines the socio-historical development of social welfare, focusing upon changes in the theory and practice of social welfare in American and other societies. This course may not be offered annually.

SOC 08230: The Sociology Of Minority Groups 3 s.h.
Prerequisites: SOC 08120
This course analyzes the nature of the relationships among ethnic, racial and other groupings in our society. It examines and tests sociological theories by the study of specific past and present minority group situations.
### SOC 08269: Self And Society
3 s.h.
This introductory course in the study of behavior in everyday life examines the sociology of the familiar, looking at the socialization processes, the effect of social interaction and re-socialization. The course focuses on the individual as a social interacting organism.

### SOC 08320: Urban Sociology
Prerequisites: SOC 08120
3 s.h.
This course examines the process, conditions and problems of urbanization. It emphasizes the social phenomena of the contemporary urban scene, the problems of mass society and their possible solution, mass organization, mass communication and regional interdependence.

### SOC 08322: The Sociology Of Religion
Prerequisites: SOC 08120
3 s.h.
This course studies sociological theories of the origin and nature of religion. It includes the relationship of religion to family life, sexuality, ethnic identity, economic inequality and political power. Students also study conservative and radical religious movements in contemporary society and secularization and secular substitutes for religion. This course may not be offered annually.

### SOC 08323: The Sociology Of Social Work
Prerequisites: SOC 08120 and SOC 08223
3 s.h.
This course examines the socio-historical development of social work, giving attention to the processes of casework, group work and community organization as well as aspects of social work as a profession. This course may not be offered annually.

### SOC 08325: Deviant Behavior And Social Control - Wi
Prerequisites: Soc 08120
3 s.h.
This course explores the major theoretical and research issues in the study of deviant behavior. Then, drawing on a wide variety of types of deviant behavior, the course studies three levels of social reality: the interpersonal, the organizational and the structural. The course seeks to place deviant behavior within the context of traditional social processes and structures.

### SOC 08326: The Socialization Of The Child Through Adolescence - Wi
Prerequisites: SOC 08120 or SOC 08220
3 s.h.
This course focuses upon the processes and social forces which facilitate the ways in which individuals are prepared to enter various groups within the life cycle.

### SOC 08327: Comparative Education In Sociological Perspective
Prerequisites: SOC 08120
3 s.h.
This course compares the educational systems of different societies and their relationships to other social institutions in their societies. Such features as the overall purposes and goals of education, its accessibility to different social strata, gender differences, services to special populations in the society, and the teaching profession are compared. In each case study studied, both unique characteristics of the educational system are highlighted as well as those similar to other societies, with the focus on social forces which influence the makeup and functioning of different educational systems.

### SOC 08328: Sociology of Disasters and Crisis
Prerequisite: None
3 s.h.
This course explores disasters and emergency response via a sociological lens and examines the need to systematically understand the social impacts of such tragic events. Participants will learn how to be better prepared to functions as an effective member of their community to enhance the chances of improving preparedness, mitigation, and response to possible natural or technological hazards. Furthermore, this course will include discussions of disaster types, individual and collective vulnerabilities of various populations to disasters, disaster-related organization and social policies, issues of disaster preparedness, the media and disaster response, and challenges/opportunities of disaster recovery and prevention.

### SOC 08330: Social Stratification
Prerequisites: SOC 08120
3 s.h.
This course examines the major classic and modern theories of social stratification and analyzes the forms and functions of social inequality in contemporary societies. It stresses the influence of class membership on individual behavior and examines the implications of institutionalized inequalities for democratic societies.

### SOC 08331: Classical Sociological Theory
Prerequisites: SOC 08120
3 s.h.
This course studies the historical and conceptual development of the major schools of thought within the "sociological tradition." It emphasizes an understanding of the nature of theory and systems of theory, the application of theory, the problems inherent in theorizing about society and social life and the relations between sociological theory and research. (Required for sociology majors)
Contemporary Sociological Theory is one of two core courses that starts with the classical period and culminates with this course covering theory in recent times. Contemporary Sociological Theory examines the state of the field in the twentieth century, focusing on theoretical issues and frameworks that have come to define Sociology, its research and methods. It will include consideration of the Parsonian structural functionalism of the 1950s, the critique of Positivism that emerged during the 1960s, and the fragmentation of the field into the many perspectives and approaches there are today.

This course uses sociological propositions of bureaucracy, professionalization, delegation, goal distortions and informal organization to evaluate critically various management philosophies. It examines interdependence of structure, status, leadership and motivation.

The purpose of this course is to study education as a social institution and its interrelationships with other social institutions. It focuses on how education is affected by social forces such as demographic changes, governmental policy, and mass media; and how education itself impacts on the rest of society, such as perpetuating social inequalities.

This course focuses on using sociological theories and concepts, research methods, and ethical decision-making processes to solve problems. Sociological practice occurs at all levels from the individual to societal. The course links the student to a variety of career pathways and occupational settings, including mental health, rehabilitation, work in prisons, and youth and family services.

The purpose of this course is to study education as a social institution and its interrelationships with other social institutions. It focuses on how education is affected by social forces such as demographic changes, governmental policy, and mass media; and how education itself impacts on the rest of society, such as perpetuating social inequalities.

This course analyzes the interplay between society and politics, using both classical and contemporary perspectives. Course topics may include: power, elites, conflict, ideology, political systems, political behavior, political organization, political institutions and political processes and change.

This course discusses the major theories and research in complex and formal organizations, giving special attention to a variety of organizational types, including industrial, service and non-profit. It emphasizes examining varying organization types with respect to their size, structure, environments and their dynamics of innovation and change.

The Sociology of Disability adopts a narrative approach from the perspectives of disabled persons, based on memoirs, short stories, and novels, which are applied to relevant sociological theories, concepts, and perspectives. Sociological issues examined in this course include how professionals and practitioners variously define disability, the history of how sociologists have discussed the concept, the analysis of “disabled” cultures both in the US and abroad, and the effects of the Disability Rights Movement on selfhood and collective identity. Most importantly, the course examines how persons with disabilities cope with devalued roles, manage stigma, and incorporate disability into identity.

This course focuses on contemporary Jewish life with primary focus on American Jews. Situating them in historical and transnational context, the course will explore their significance as a diaspora community, while exploring the role of collective memory, religion, and the construction of Jewish culture. Students will learn the who, what, where and when of this religious/ethnic group, its diversity, and issues relating to integration and intergroup relations with the larger society. Introduction to Sociology or Introduction to American Studies is recommended as a prerequisite, but not required.

This course investigates the role of women in society. Course topics include: Women and the Economy, Women and the Law, Socialization into Female Sex Roles, Women and Religion and Women in Academia.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>SOC 08375</td>
<td>Sociological Research Methods</td>
<td>3 s.h.</td>
<td>SOC 08120</td>
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<td></td>
<td><em>Prerequisites:</em> SOC 08120</td>
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<td><em>This course introduces the student to the scientific methods used in the social sciences, the relationship between sociological theory and methodologies of data collection and analysis, the rudiments of basic types of data analysis and interpretation. Students will learn to read and summarize basic scientific reports, to critically analyze and evaluate reported research findings in the social sciences, and to recognize ethical concerns associated with sociological research. (Required for Sociology majors)</em></td>
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<tr>
<td>SOC 08376</td>
<td>Social Statistics</td>
<td>3 s.h.</td>
<td>SOC 08120</td>
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<td></td>
<td><em>Prerequisites:</em> SOC 08120</td>
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<td><em>This course familiarizes the student with the basics in elementary statistical methods used in the social sciences and the uses and misuses of statistics for various purposes. The student will learn to calculate and understand the proper use of basic statistics commonly used in the social sciences. (Required for Sociology majors)</em></td>
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<tr>
<td>SOC 08391</td>
<td>Ethnic Minorities In China</td>
<td>3 s.h.</td>
<td>SOC 08120</td>
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<td></td>
<td><em>Prerequisite:</em> SOC 08120</td>
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<td><em>This is an upper level sociology course that will acquaint students with the theoretical frameworks and methodology procedures of ethnic and minority studies. It will introduce to students racial and ethnic compositions and characteristics of the population of China, the administrative arrangement of areas and regions inhabited by minority nationalities and the history and culture of these minorities. The focus of this course will be the examination of ethnic minorities from the sociological points of view that will offer students a comparative and global perspective of ethnic studies.</em></td>
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<tr>
<td>SOC 08399</td>
<td>Sociology Of The Holocaust - Wi</td>
<td>3 s.h.</td>
<td>SOC 08120</td>
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<td></td>
<td><em>Prerequisites:</em> SOC 08120</td>
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<td><em>This course primarily deals with structural and experiential dimensions of the genocidal process affecting the European Jews, their ethnicity, culture and religious commumality after 1933. Gypsies, Jehovah’s Witnesses, prisoners of conscience, Russian prisoners of war, the Polish intelligentsia, who with the Jews, became a subject of Nazi persecution are also among those remembered. The Holocaust or shoa will provide a model for compassionate insight into the experience of other persecuted ethnic and religious minorities or any who suffer disadvantage due to long-standing discrimination, such as women and homosexuals. Special emphasis will be given to understanding the interpersonal processes which are part of survival and transcendence of situations where we find society against the self.</em></td>
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<tr>
<td>SOC 08400</td>
<td>Environment, Policy And Society</td>
<td>3 s.h.</td>
<td>SOC 08120</td>
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<td></td>
<td><em>Prerequisites:</em> SOC 08120</td>
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<td><em>This course emphasizes the interaction between the social and ecological environments including: technological mechanisms by which societies shape their environments; cultural values that cause people to use the environment in particular ways; and policy implications that may result in social consensus or conflict concerning manipulation of the natural environment.</em></td>
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<tr>
<td>SOC 08401</td>
<td>Human Service Organizations</td>
<td>3 s.h.</td>
<td>SOC 08120</td>
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<td></td>
<td><em>Prerequisites:</em> SOC 08120</td>
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<td><em>This course will focus on the micro and macro aspects of human service organizations of various kinds; for example, hospitals, courts, nursing homes, public agencies, schools, and the like. These organizations will be examined in terms of their structure, delivery of services, their function of &quot;processing&quot; human beings, the internal and external environments in which they operate, and the policy implications for delivery of services and organizational change.</em></td>
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<tr>
<td>SOC 08403</td>
<td>Sociology Of Death, Dying, And Bereavement</td>
<td>3 s.h.</td>
<td>SOC 08120</td>
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<td><em>Prerequisite:</em> SOC 08120</td>
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<td><em>This course provides students with an in-depth examination of the social and cultural dimensions of death, dying, and bereavement within the United States. Cross-cultural, historical, and international perspectives are also introduced as various theories and methods of sociology are employed to examine such issues as the meaning of death, the process of dying, facing death across the life course, the death industry, coping with loss and grief, and the social context of death, dying and bereavement. Instruction of the course material frequently takes an applied approach when connections are made between theory and practice as they exist within various occupations and industries centered on death, dying, and/or bereavement.</em></td>
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<tr>
<td>SOC 08405</td>
<td>Applied Community Development</td>
<td>3 s.h.</td>
<td>SOC 08120</td>
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<td></td>
<td><em>Prerequisite:</em> SOC 08120</td>
<td></td>
<td><em>This course is designed to demonstrate how social science theory and research can be applied to conduct collaborative work between communities and academic research by identifying: 1) social, 2) economic, 3) political and 4) physical infrastructural problems. Moreover, it is the goal of this course to work with communities by developing strategies toward the discovery of sustainable development solutions vis-à-vis community development strategies and planning.</em></td>
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</tbody>
</table>
**Course Descriptions**

**SOC 08420: Sociology of Trauma, Illness and Mental Health**  
3 s.h.  
Prerequisite(s): SOC 08120  
This course examines sociological approaches to trauma, illness and mental health. The focus of this course will be on the history, etiology, social responses, social factors related to mental disorders and mental health treatment associated with illness and trauma. It surveys major perspectives and reviews the history of the perception of mental disorder in western society. Classification, diagnosis, therapeutic approaches and institutional responses in addition to medical, legal, and social issues related to mental health and the treatment of people with mental disorders will be addressed. While there will be attention given to specific mental disorders, the primary considerations will cover the consequences of conceptualizations and treatment of mental illness rather than the development of individual conditions we deem as mental disorders or physical illnesses.

**SOC 08422: Social Determinants of Health: Theory, Method and Intervention**  
3 s.h.  
Prerequisite(s): None  
This course views disease risk beyond disease pathology and individual factors to psychological and sociological phenomena by exploring the social and cultural determinants of health behavior with an introduction of health behavior theories and application of interventions such as behavior change models and health program development.

**SOC 08425: Senior Seminar In Sociology**  
3 s.h.  
Prerequisites: SOC 08120, SOC 08331, SOC 08375 and SOC 08376 or permission of the instructor.  
This seminar is a capstone experience designed to help students integrate what they have learned as sociology majors in a liberal arts setting. Students will engage in oral discussions and presentations as well as written exercises and essays to demonstrate an understanding of the sociological perspective, theoretical approaches and methods. The substantive focus of the seminar will vary by instructor.

**SOC 08426: Sociology Senior Seminar - Wi**  
3 s.h.  
Prerequisites: SOC 08120, SOC 08331, SOC 08375 and SOC 08376 or permission of the instructor.  
This Senior Seminar is a writing intensive capstone experience designed to help students integrate what they have learned as sociology majors in a liberal arts setting and to write at a publication-ready level within the field or for specific audiences in different professional climates. Students will engage in oral discussions and presentations as well as written exercises and essays, demonstrating as they do an understanding of the field, its theoretical approaches and methods. The substantive focus of the seminar will vary by instructor.

**SOC 08427: Senior Seminar: Sociological Imagination-Wi**  
3 s.h.  
Prerequisites: SOC 08120, SOC 08331, SOC 08375 and SOC 08376 or permission of the instructor.  
This Senior Seminar course is for the Bachelor of Arts, Liberal Studies: Humanities/Social Science sequence, an interdisciplinary program. It is the writing intensive component of the sociology sequence and is expected to make this senior seminar an especially rich capstone experience, helping students develop as scholars and professionals. The sociological imagination will be evidenced in all of a student’s work for the course and be reflected in oral discussions and presentations, as well as written exercises and essays.

**SOC 08430: Case Management Intervention In Sociological Practice**  
3 s.h.  
Prerequisites: SOC 08120 and SOC 08233  
This course emphasizes effective case management practice at the micro, mezzo, and macro levels of system intervention for populations at risk; Application of systems thinking to case management issues with individuals, families, and groups; Issues of aging, family mental health, child welfare, adult services and health are interwoven into practice scenarios in an effort to explore the multiple social problems faced by groups in a social service organization on a regular basis.

**SOC 08431: Social Psychology Of City Life**  
3 s.h.  
Prerequisites: SOC 08120  
The advanced course studies everyday behavior in the city. It examines the ways people experience and give meaning to urban life, using different social-psychological conceptions and methodologies.

**SOC 08436: Sociology Of Medicine**  
3 s.h.  
Prerequisites: SOC 08120  
This course analyzes medicine as a major institution in American society. It covers concepts of health and illness, attributes of a profession, the hospital, national health care, ethical issues and biomedical research.

**SOC 08440: Selected Topics In Sociology**  
3 s.h.  
Prerequisites: SOC 08120  
This course provides a seminar experience in areas of sociology that are not a part of the recurring course offerings. Enrollment is limited, and student participation is maximized. Consult the Master Schedule each semester for specific topics being offered. This course may not be offered annually.
SOC 08441: Soc Of Migration: Contemp Persp
Prerequisites: SOC 08120 or SOC 08230
This course examines the transnational journeys of migrants and refugees to the United States and provides a sociological perspective for understanding the diverse causes, consequences and contexts of contemporary international immigration. It provides students with a good understanding of and ability to analyze the effect of contemporary migration on American society. It is of particular benefit to those who are likely to work with communities containing substantial numbers of recent immigrants.

SOC 08450: Sociology Of Ethnicity And Politics
Prerequisite: SOC 08120 or SOC 08230
This course provides students with an in-depth look into the relation between ethnicity and politics. It studies ethnic politics from the point of view of its participants by exploring their ideas and actions as well as analyzing the sociological factors that make some social agents involved in ethnic politics more than others. The course analyzes a number of historical and recent cases of nationalist and ethnic politics to discern the main similarities and differences among various types of ethnic ideologies and movements.

SOC 08491: Independent Study In Sociology
Prerequisites: SOC 08120
This course gives students an opportunity to pursue individual, specialized research under guidance of a staff member. This course may not be used as a substitute for any course offered by the department. Entrance is only with the permission of the instructor and the chairperson of the department. This course may not be offered annually.

SOC 08493: Seminar On Gender Roles
Prerequisites: SOC 08220
Students develop and present a major seminar paper in the area of the role of men and/or women in society. The range of topics covered in any semester depends upon the interests of the enrolled students. Students will read all class papers prior to presentation.

SOC 08494: Field Experience Seminar In Sociology - Wi
Prerequisites: Permission of Instructor
This seminar provides the opportunity for students to be engaged in a field experience which will contribute to their sociological development. Students interact with their instructor and the other students in the seminar in the development, supervision and completion of individual projects. Areas of interest may include sociological research, analysis of social agencies and the development of affirmative social action programs. *(Entrance to this course is with the permission of the instructor and the enrollment is limited. This course may be taken for 3 or 6 s.h., however, only 3 s.h. will apply toward the 33 s.h. needed for a sociology major).

SOC 09323: The Sociology Of Crime And Criminal Law
Prerequisites: SOC 08120
This course analyzes crime and criminal law, emphasizing the nature and extent of crime within the context of the nature and functions of criminal law. It stresses problems of sociological theory and research in the area.

SOC 09333: The Sociology Of Punishment And Correction
Prerequisites: SOC 08120
This course examines historical and contemporary theories of punishment within a sociological framework. It gives a critical survey of the structure, goals and problems of the American criminal justice system.

SOC 15322: The Sociology Of Population
Prerequisites: SOC 08120
This course analyzes population growth and change, especially the American population. It emphasizes urban, rural, ethnic, racial, religious and social class differences. It also examines population variables and population theories. This course may not be offered annually.

ECED 23220: Teaching In Learning Communities II: Early Childhood Education
Prerequisite: C- or better in EDUC 01270
Built on the learning community philosophy developed in TLC I, this course will provide teacher candidates with a broad overview of the field of inclusive early childhood education including the issues that affect it. Teacher candidates are introduced to the impact of historical, political, social, and economic issues on the classroom for all children, including children with special needs. Standards, philosophies, theories, and teaching and learning principles that underpin inclusive early childhood education are revealed to enable teacher candidates to begin developing a personal philosophy of how children learn and what teachers need to do for their learning. Field visits in inclusive early childhood education settings will be required. This course is offered in the spring semester only.
### Course Descriptions

**ECED 23221:** Family, Community And School Relationships 3 s.h.  
*Prerequisite: EDUC 01270*  
This course is designed to heighten teacher candidates' awareness of the roles that family and community have on a child's success in school. Teacher candidates will learn that all children must be understood in the context of their community environment, including their families, schools, communities, and the wider society. Teacher candidates will also develop skills in working effectively with diverse families in the learning community, in order to provide positive educational outcomes for the child. Field visits are required. This course is offered upon special request.

**ECED 23320:** Growth And Learning: The Preschool Age Child, Birth - 5 3 s.h.  
*Corequisite: READ 30320 Prerequisites: EDUC 01272*  
This course will build upon General Education coursework in Child Development and Educational Psychology. Teacher candidates will apply knowledge from these foundational courses to understand how young children, including children with special needs, grow and learn. They will apply theories of child development in early childhood to preschool and early childhood care settings. Teacher candidates will also use developmentally appropriate practice as a foundation for planning and making decisions in inclusive preschool education settings. They will recognize that children are best understood in the contexts of family, culture, and society and be able to articulate teaching and learning strategies that affirm and respect all children. Field visits are required. This course is offered in the fall semester only.

**ECED 23322:** Growth And Learning: The Primary Grade Child: Kindergarten - 3rd Grade 3 s.h.  
*Corequisite: ECED 23322 Prerequisites: ECED 23320 and READ 30320*  
Teacher candidates will use and apply knowledge that stems from the previous child development and learning courses to understand how young school age children, including typical and atypical children, grow and learn from kindergarten through third grade. Teacher candidates will be able to apply theories of childhood development in the classroom with direct implications for teaching and learning. Teacher candidates will also be able to use developmentally appropriate practice as a foundation for planning and making decisions in inclusive primary education settings. Field visits are required. This course is offered in the spring semester only.

**ECED 23323:** Planning, Integrating, And Adapting Curriculum: Math And Science 3 s.h.  
*Corequisite: ECED 23321 Prerequisites: READ 30320, ECED 23320, MATH 01201 and MATH 01115*  
This course is designed to enable teacher candidates to understand and plan curriculums for teaching math and science. This course will start from the perspective of teacher candidates' experiences of learning science and mathematics. They will reflect on their own prior experiences with math and science and discover the impact of those experiences on their feelings of efficacy. Teacher candidates will experience teaching strategies and processes that we expect them to master and use in teaching math and science for young children in inclusive settings. Within an integrated framework, teacher candidates will develop the conceptual knowledge base for developing a coherent science and mathematics program with developmentally appropriate activities and expectations. Field visits are required. This course is offered in the spring semester only.

**ECED 23330:** Observation, Assessment, And Evaluation Of Diverse Learners 3 s.h.  
*Corequisite: ECED 23331 Prerequisites: ECED 23321 and ECED 23322*  
This course provides teacher candidates with a dynamic hands-on exploration of the measurement and evaluation of children who are in the developmental period known as early childhood. Teacher candidates will learn about standardized measurement and other types of assessments that are appropriate for young children, including children with special needs. The tools of authentic assessment with checklists, rating scales or observation will be used within the candidates' field experience in both regular and special education settings. Research into the rationale of assessment of young children will also be explored. Field visits are required. This course is offered in the Fall semester only.

**ECED 23343:** Planning, Integrating And Adapting Curriculum Across Content Areas 3 s.h.  
*Corequisite: ECED 23343 Prerequisites: ECED 23321 and ECED 23322*  
This curriculum course considers the areas of Social Studies, Music, Movement, Arts, Drama, and Health/Physical Education as disciplines with a major focus; on the integration of curriculum in a rich learning environment. Teacher candidates will also design learning communities that enhance all members of learning, by creating environment that reflect the standards. Further, teacher candidates will learn and practice the art of facilitating classroom learning centers and classroom activities. Finally, teacher candidates will be able to identify, select, and plan developmentally appropriate activities in Social Studies and Arts for both typical and atypical children in inclusive settings. Field visits are required. This course is offered in the Fall semester only.

**ECED 23446:** Clinical Practice In Early Childhood Education 10 s.h.  
*Corequisites: ECED 23447 and SECD 03510 Prerequisites: ECED 23450 and ECED 23431*  
The clinical practice experience is a supervised, full-time activity conducted in the early childhood classrooms, PreK to 3rd grade. In this course, teacher candidates must demonstrate abilities to plan and implement developmentally appropriate practice for all children, including developing lesson plans, integrating various activities/lessons into the teaching, accommodating multiple instructional strategies, assessing and documenting learners' performance, building safe and positive learning environment, managing the classroom, and collaborating with families and other professionals. This is a full time field-based course. This course should be taken in senior year.
ECED 23447: Early Childhood Education Clinical Seminar 1 s.h.
Corequisites: ECED 23446 and SECD 03350 Prerequisites: ECED 23430 and ECED 23431
This course is a capstone course for all teacher candidates in the Early Childhood Education Program. The main goals of this course are to synthesize the pre-service components of the early childhood teacher education in inclusive settings and to facilitate the transition into the profession. For these goals candidates will have opportunities to reflect on their understanding of child development and to communicate and collaborate with family and community of both typical and atypical children, to plan curricula for all children, to assess and document diverse learners' performance and progress, and to understand professional development of teachers in inclusive settings. They will also develop a professional portfolio. This course should be taken with Clinical Practice in Early Childhood Education.

EDUC 01102: Learning Communities 2 s.h.
This course provides an introduction to the Co-Teach program and learning communities. Through it, students will develop an understanding of how a learning community operates and what is required to be a successful participant. Students will also learn and practice the skills of collaboration through classroom and clinical experiences. This course, and its companion—Foundations of Education—form the foundation on which the rest of the program is built.

EDUC 01104: Teaching: An Introduction To The Profession 3 s.h.
This case-based introductory course is designed for students considering a career in teaching. It guides students through the profession, its foundations, realities, challenges, and rewards. Students will evaluate classroom practices using case studies, video methodology, and online resources. They will participate in ten (10) hours of field-based observations.

EDUC 01200: Literacy, Learning And Curriculum 6 s.h.
Prerequisites: EDUC 01102 and EDUC 01103
This course is a continuation of the sequence of courses in the Co-Teach program. This course builds knowledge about literacy and literacy development as it pertains to regular and special education. The focus of the course is to integrate the major concepts of curriculum development and literacy. The emphasis will be on the interface between literacy development and social studies through appropriate curricular planning. An observational field experience will be required.

EDUC 01270: Teaching In Learning Communities I 3 s.h.
Prerequisites: This course for teacher candidates in undergraduate teacher certification programs provides an introduction to the elements of successful, caring learning communities and will serve as a foundation for Teaching in Learning Communities II and future education courses. Teacher candidates will learn about, observe, participate in, and reflect on various aspects of learning communities and types of collaborative teaching and learning. They will begin their understanding of the interactions between and among curriculum, planning, instructional approaches, assessment, culture, diversity, and management within a learning community environment. Field visits will provide the opportunity for teacher candidates to begin to make the connection between the content of the course and its application in elementary classrooms.

EDUC 01272: Teaching In Learning Communities II 3 s.h.
Prerequisite: C- or better in EDUC 01270
This course provides in-depth examination and practice of instructional planning and assessment in a caring learning community. Candidates study viable learning community approaches where content-rich, research-based, and culturally responsive teaching and democratic and inclusive practices are used in caring learning environments. Candidates develop skills in objective, lesson, unit, and assessment design. Field component is required.

EDUC 01282: Teaching In Learning Communities II-Art 3 s.h.
Prerequisite: C- or better in EDUC 01270
Teaching in Learning Communities II Art furthers the understanding of successful and caring learning communities begun in Learning Communities I. A field component is required.

EDUC 01284: Teaching In Learning Communities II-Music 3 s.h.
Prerequisite: C- or better in EDUC 01270
Teaching in Learning Communities II Music, is specifically designed to continue the development of an understanding of successful and caring learning communities begun in the Teaching in Learning Communities I course and apply it specifically to the music classroom as a "learning community." This course will be music education specific to develop a broad and deep knowledge of music education processes throughout grades K-12 in music settings. A field component is part of this course.
Course Descriptions

EDUC 01300: Instructional Planning And Collaboration 3 s.h.
Prerequisite: EDUC 01200
This course focuses on developing a thematic unit plan in the area of literacy. Students learn about various instructional approaches and how to select the best approach for a specific student. Students identify new developments in the field of technology and their applications in teaching all children. Students participate in a literacy clinic in which they will work with children experiencing difficulty in some aspect of literacy, related to their field placement.

EDUC 01301: Instructional Implementation And Collaboration 3 s.h.
Prerequisites: EDUC 01102 and EDUC 01103
During the spring semester, the focus is on instructional implementation and collaboration. Students learn about collaborative problem-solving models and participate in a problem-solving activity. Students learn how to design, structure and manage daily classroom routines. They also learn about the principles of action research and develop an action research project.

EDUC 01400: Teaching In Inclusive Classrooms 4 s.h.
Prerequisites: EDUC 01300 and EDUC 01301
This course is designed to enable students in the Collaborative Education major to develop and implement methods for teaching, managing, and evaluating children with special needs. Students will learn about the impact of specific disabilities on learning and behavior, the rationale for inclusive education, and academic adaptations for children with special needs. Students will be responsible for developing and implementing instructional and/or behavior management adaptations in their field placements and reporting on these to the class.

EDUC 01401: Developing And Adapting Instruction In Elementary Classrooms 4 s.h.
Prerequisites: EDUC 01300 and EDUC 01301
This course is designed to prepare teacher candidates to use a variety of teaching models and strategies to make mathematics and science instruction accessible to all students. Instructional standards developed by NCTM and NSTA will be reviewed. A technology component addressing the use of technology as a tool for teachers and learners will be incorporated. Issues of equity, curriculum integration, collaboration, and reflection will be emphasized in both course and field assignments. The course includes a field assignment in an inclusion classroom.

EDUC 01402: Developing And Adapting Assessment For All Learners 3 s.h.
Prerequisites: EDUC 01300, EDUC 01301 and EDUC 01401
The course emphasizes the link between assessment and instructional decisions for learners at a variety of academic and functional levels. Prospective classroom teachers will learn how to routinely use curriculum-based and authentic assessment techniques. Although the emphasis of this course is on informal assessment, an introduction to standardized tests and statistical factors in testing is included. Teacher candidates will develop informal assessment measures in conjunction with their field placement responsibilities.

ELEM 02319: Curriculum And Assessment In Elementary Classroom 4 s.h.
Prerequisites: EDUC 01272 Minimum Grade C- and READ 30280 Minimum Grade C- and SMED 33420 Minimum Grade C- and MATH 01201 Minimum Grade B-
This course examines the use of established elementary education content standards in science, social studies, health, and the arts and how interdisciplinary, thematic units of inquiry facilitate meeting those standards. Current research about the way children learn and effective teaching is stressed. Students apply research on the way children learn in science, social studies, health, and the arts, as well as instructional knowledge and skills they are developing related to inquiry-based instruction, assessment, and differentiating that instruction for elementary students. Building on school district materials and mandates, teacher candidates plan, teach, and assess an interdisciplinary unit of inquiry, which reflects candidates' understanding of appropriate content and pedagogy in science, social studies, health, and the arts for the grade and student in the classroom. Teacher candidates will also review, administer as appropriate, and reflect on results of varied assessments of student learning that are typically used in that classroom. The course includes a field experience, and assignments are coordinated with a concurrent course on differentiating instruction.

ELEM 02336: Mathematics Pedagogy For Elementary Teachers 2 s.h.
Prerequisite: MATH 01301 with a minimum grade B-Corequisites: ELEM 02338 and READ 3051
This course in mathematics pedagogy for the elementary education candidate focuses on the knowledge and skills essential for teaching mathematics. Utilizing current research findings about how students develop mathematical concepts and processes, candidates will develop an understanding of teaching and learning mathematics at the elementary level. Teacher candidates will develop a repertoire of instructional strategies and will develop and analyze effective mathematics lessons. A field component is required.
Course Descriptions

ELEM 02338: Practicum In Mathematics And Literacy 1 s.h.
Corequisites: ELEM 02336 and READ 30351 Prerequisites: ELEM 02319 and SPED 08316
This field experience course provides an opportunity for candidates in the Elementary Education Specialization to practice their developing instructional skills once a week in a K-5 classroom setting. Candidates will work with partners in assigned classrooms to assist with literacy and mathematics instruction and to take the lead in developing and teaching lessons in literacy and mathematics.

ELEM 02445: Elementary Education Clinical Practice Seminar 1 s.h.
Corequisites: ELEM 02448 SECD 03350
This capstone senior seminar provides elementary education candidates with a supportive atmosphere in which to synthesize the pre-service components of their academic preparation with actual experience, emerging issues in the field of education, and their transition into the profession. Candidates develop a philosophy of teaching; gather and present evidence of their comprehensive knowledge, skills, and dispositions expected in this profession; and demonstrate knowledge of current critical and contemporary issues facing educators and those who hold a stake in education. Interviewing skills and a professional portfolio will be developed.

ELEM 02448: Clinical Practice In Elementary Education 10 s.h.
Corequisites: ELEM 02445 and SECD 03350
The clinical practice experience is a supervised, full-time activity conducted in a public elementary classroom. In this course, candidates must demonstrate mastery of subject area content, lesson planning, and use of multiple instructional strategies; ability to assess learner progress, manage all aspects of classroom activity, work collaboratively with all colleagues, administrators, families, and community, and to document evidence of doing all of the above. This is a full-time field-based course taken in the senior year.

FNDS 21150: History Of American Education 3 s.h.
This course provides an in-depth study of American education from 1600 to the present, covering preschool through post-secondary education. It focuses on the social forces, sources of conflict, major educational figures and patterns of schooling during each period. In addition, the course will highlight the ways in which diversity has been accommodated, marginalized, or rejected in American education. Students will be able to identify and discuss ways in which diversity has been accommodated, marginalized, or rejected in American education.

FNDS 21230: Characteristics Of Knowledge Acquisition 3 s.h.
This course will focus on how human beings think, process information and acquire skills. Discussion of learning philosophies and applications in a variety of settings will be addressed. Methods of inquiry, reflection, motivation, creativity and critical thinking will be explored.

SECD 03330: Practicum In Teaching And Learning A 1 s.h.
Practicum in Teaching and Learning A is a co-requisite with Teaching and Learning Mathematics A, Teaching and Learning English/Language Arts A, Teaching and Learning Social Studies A, or Teaching and Learning Foreign Language A, Teaching and Learning Science A. The course will consist of a general opening session, a general closing session, sessions at a cooperating public middle school, and visits to government agencies, commercial sites, community sites, campus-based laboratories (when appropriate) and/or museums.

SECD 03332: Practicum In Teaching And Learning B 1 s.h.
Practicum in Teaching and Learning B is a co-requisite with Teaching and Learning Mathematics B, Teaching and Learning English/Language Arts B, Teaching and Learning Social Studies B, or Teaching and Learning Foreign Language B, Teaching and Learning Science B. The course will consist of a general opening session, a general closing session, sessions at a cooperating public high school, and visits to governmental agencies, commercial sites, community sites, campus-based laboratories (when appropriate) and/or museums.

SECD 03335: Teaching Students Of Linguistic And Cultural Diversity 1 s.h.
Corequisites: ECED 23446 and ECED 23447 or ELEM 02445 and ELEM 02448 or SECD 03455 and SECD 03436
The issues of inclusion form an integral part of a teacher preparation program. The schooling of all children demands that diversity in multiple forms be addressed in the inclusive classroom, including cultural and linguistic diversity. Knowledge about diversities and the performance of appropriate instructional strategies are emphasized in this course, and attention is directed to the sensitivity needed to assist the learning of students of linguistic and cultural diversity.

SECD 03435: Clinical Practice In Subject Matter Education 10 s.h.
Corequisites: SECD 03350 and SECD 03436
The clinical practice experience is a supervised, full-time activity conducted in public secondary classrooms, and it requires demonstrated mastery of subject area content, lesson planning, and multiple instructional strategies to meet varied student needs; demonstrated ability to assess learner progress and modify instruction accordingly, ability to manage all aspects of classroom activity, ability to work collaboratively with all instructional, administrative, parental, and community members of the classroom and school community, and ability to document evidence of doing all of the above. This is a full-time
field-based course taken in the senior year.

**SECD 03436: Subject Matter Clinical Seminar**

1 s.h.

Corequisites: SECD 03350 SECD 03435

This capstone seminar is designed to provide pre-service K-12 subject matter teacher candidates with a supportive atmosphere that builds relationships with peers and mentors while offering an opportunity to synthesize the pre-service components of their academic preparation with actual experience and emerging issues in the field of education and their transition into the profession. Teacher candidates develop a holistic concept of their philosophy of teaching; gather and present evidence of their comprehensive knowledge, skills, and dispositions expected of the profession; and demonstrate knowledge of current critical and contemporary issues facing educators and those who have a stake in K-12 subject matter education. Interviewing skills will be developed during this course. A corequisite field internship is required.

**SMED 31450: Clinical Practice In Art Education**

10 s.h.

Corequisites: SECD 03350 and SMED 31451

This senior level course provides the teacher education candidate with opportunities to demonstrate the professional knowledge, pedagogic skills and dispositions developed in preservice professional course work. The student teaching experience is a supervised, full-time activity conducted in public elementary, middle and secondary art classrooms. The experience requires demonstrated mastery of artistic content, lesson planning, instructional techniques in the arts, student assessment and classroom management. Admission to this course requires completion of professional education courses and near completion of academic major courses. A minimum grade point average of 3.0 in major and professional education courses is required.

**SMED 31451: Clinical Practice Seminar In Art Education**

1 s.h.

Corequisites: SECD 03350 and SMED 31450

This capstone seminar for art teacher candidates provides an opportunity to establish structural knowledge apriori that will enable the integration of applied art classroom experiences during the subsequent weeks of student teaching and; creates a forum for students to process new experiences in the elementary, middle and secondary schools with art professionals who share an understanding of the context in the art classroom. Interviewing skills and a professional portfolio will be developed during this course.

**SMED 32411: Clinical Practice In Music**

10 s.h.

Corequisites: SECD 03350 and SMED 32412

This senior level course provides the teacher education candidate with opportunities to demonstrate the professional knowledge, pedagogic skills and problem-solving ability developed in preservice professional course work. The student teaching experience is a supervised, full-time activity conducted off-campus in a public secondary school classroom. The experience requires demonstrated proficiency in lesson planning and evaluation, instructional techniques, student assessment and classroom management. Admission to student teaching requires near completion of academic major, minimum grade point average of 3.0 in major and recommendations by major field academic department and teacher education faculty.

**SMED 32412: Clinical Practice Seminar In Music**

1 s.h.

Corequisites: SECD 03350

This capstone seminar for music student teachers provides an opportunity to establish structural knowledge apriori that will enable the integration of applied music classroom experiences during the subsequent weeks of student teaching, and creates a forum for students to process their new experiences in the schools with music professionals who share the context for the music classroom.

**SMED 32413: Clinical Practice: Elementary Music**

5 s.h.

Prerequisites: SMED 32313 (Allows Concurrency) and smed 32329 and (SMED 32330 or SMED 32331). Corequisites: SMED 32412 and SMED 21414 and SECD 03350.

This senior level course provides the teacher education candidate with opportunities to demonstrate the professional knowledge, pedagogic skills and dispositions developed in pre-service professional course work. The student teaching experience is a supervised, full-time activity conducted in public elementary music classrooms. The experience requires demonstrated mastery of music content, lesson planning, instructional techniques, student assessment and classroom management in elementary music. Admission to this course requires completion of professional education courses and near completion of academic major courses. A minimum grade point average of 3.0 in major and professional education courses is required.
SMED 32414: Clinical Practice: Secondary Music 5 s.h.
Prerequisites: SMED 32239 AND (SMED 32330 OR SMED 32331)
This senior level course provides the teacher education candidate with opportunities to demonstrate the professional knowledge, pedagogic skills and dispositions developed in pre-service professional course work. The student teaching experience is a supervised, full-time activity conducted in public secondary music classrooms. The experience requires demonstrated mastery of music content, lesson planning, instructional techniques, student assessment and classroom management in secondary music. Admission to this course requires completion of professional education courses and near completion of academic major courses. A minimum grade point average of 3.0 in major and professional courses is required.

SMED 33330: Teaching/Learning A: Mathematics 3 s.h.
Prerequisite: C- or better in EDUC 01272 and READ 30319 and SMED 33420 Corequisite: SPED 08316 and SECD 03330
This first in a sequence of two three-credit courses is designed for students majoring in mathematics and planning careers as K-12 mathematics teachers. Teacher candidates will learn to organize instructional materials into standards-based mathematics units and daily lessons focused on scaffolding learning experiences in number sense, operations, and algebraic thinking. In conjunction with a co-requisite practicum, this course includes both community- and public school-based experiences dealing with a range of topics necessary to building a functioning learning community, including mathematics pedagogy and praxis, learner diversity, lesson and unit planning, and national and state standards for mathematics.

SMED 33331: Teaching/Learning B: Mathematics 3 s.h.
Corequisites: SECD 03332 Prerequisites: SMED 33330
This second in a sequence of two three-credit courses is designed for students majoring in mathematics and planning careers as K-12 mathematics teachers. Teacher candidates will learn to organize instructional materials into standards-based mathematics units and daily lessons focused on scaffolding learning experiences in geometry, measurement, probability, statistics, and discrete mathematics. In conjunction with a co-requisite practicum, this course includes both community- and public school-based experiences dealing with a range of topics necessary to building a functioning learning community, including mathematics pedagogy and praxis, learner diversity, lesson and unit planning, and national and state standards for mathematics.

SMED 33440: Educational Technology 1 s.h.
This laboratory course focuses on the use of educational technology in support of student learning, and integration of technology into the K-12 curriculum. Strategies to incorporate technology and the World Wide Web into the school curriculum will be explored. Each student will develop an electronic portfolio to demonstrate their growth over time and record evidence of their teaching competencies.

SMED 34330: Teaching/Learning A: Science 3 s.h.
Prerequisite: C grades or better in EDUC 01270 and EDUC 01272 and SMED 33420 Corequisites: SPED 08316 and SECD 03330
This first in a sequence of two three-credit courses, in conjunction with the matching field experience/practicum, focuses on K-12 content and instructional methodology in science for the K-12 classroom with an emphasis on middle school levels. The course content revolves around the use of the American Association for the Advancement of Science (AAAS) themes in Science for All Americans as the guiding goal for K-12 science. It introduces and elaborates on the National and New Jersey Science Standards as the means to reach specific objectives for prospective science teachers and their future students. The course concentrates on the use of inquiry based models in the teaching of science as defined by both the National and New Jersey Science Standards for grades K-8.

SMED 34331: Teaching/Learning B: Science 3 s.h.
Corequisite: SECD 03332; Prerequisites: SMED 34330 Minimum Grade of C and SECD 03330 Minimum Grade of C
This second in a sequence of two three-credit courses, in conjunction with the matching field experience/practicum, focuses on K-12 content and instructional methodology in science for the K-12 classroom with an emphasis on high school levels. The course content revolves around the use of the American Association for the Advancement of Science (AAAS) themes in Science for All Americans as the guiding goal for K-12 science. It introduces and elaborates on the National and New Jersey Science Standards as the means to reach specific objectives for prospective science teachers and their future students. The course concentrates on the use of inquiry based models in the teaching of science as defined by both the National and New Jersey Science Standards for grades 9-12.

SMED 50330: Teaching/Learning A: English Language Arts 3 s.h.
Prerequisite: C- or better in EDUC 01273 and READ 30319 and SMED 33420 Corequisite: SPED 08316 and SECD 03330
This first of two content-specific pedagogy courses, this one with a middle school emphasis, is designed for teacher candidates majoring in English and planning careers as K-12 English language arts teachers. In conjunction with a co-requisite practicum, the course includes building a functioning learning community, including English language arts pedagogy, national and New Jersey standards for English language arts, lesson and unit planning, classroom management, and attention to learning among the diverse populations who attend New Jersey schools.
SMED 50331: Teaching/Learning B: English Language Arts 3 s.h.
Corequisites: SECD 03332 Prerequisites: SMED 50330
This second of two content-specific pedagogy courses, this one with high school emphasis, is designed for teacher candidates majoring in English and planning careers as K-12 English language arts teachers. In conjunction with a co-requisite practicum, the course includes both campus and public school-based experiences dealing with a range of topics necessary to building a functioning learning community, including English language arts pedagogy, national and New Jersey standards for English language arts, lesson and unit planning, classroom management, and attention to learning among the diverse populations who attend New Jersey schools.

SMED 51330: Teaching/Learning A: Foreign Languages 3 s.h.
Prerequisite: C- or better in EDUC 01272 and READ 30319 and SMED 33420 Corequisite: SPED 08316 and SECD 03330
This course is the first of two sequential junior level courses designed for the teacher candidate preparing to teach foreign languages K-12. The focus of this course is the instruction of students in grades K-8. The course treats a variety of topics essential to development of the knowledge, skills, and dispositions of the professional foreign language teacher, including second language acquisition, using the state and local standards to plan units and lessons, and contemporary instructional strategies. The course includes a public school field experience in an elementary or middle school.

SMED 51331: Teaching/Learning B: Foreign Language 3 s.h.
Corequisites: SECD 03332 Prerequisites: SMED 51330 Minimum Grade of C
This course is the second of two sequential junior level courses designed for the teacher candidate preparing to teach foreign languages K-12. The focus of this course is the instruction of students from 9-12 grades. The course treats a variety of topics essential to development of the knowledge, skills, and dispositions of the professional foreign language teacher, including content planning and organization and contemporary instructional strategies. The course includes a public school field experiences in a middle or high school.

SMED 52330: Teaching/Learning A: Social Studies 3 s.h.
Prerequisite: C- or better in EDUC 01272 and READ 30319 and SMED 33420 and HIST 05306 Corequisite: SPED 08316 and SECD 03330
This first in a sequence of two three-credit courses is designed for students majoring in one of the social studies disciplines and planning careers as K-12 social studies teachers. Teacher candidates will learn to organize instructional materials into standards-based social studies units and daily lessons appropriate for the elementary and middle school grades. In conjunction with a co-requisite practicum, this course includes both community- and public school-based experiences dealing with a range of topics necessary to building a functioning learning community in social studies classrooms, including an introduction to theories of social studies education, standards-based lesson and unit planning, social studies pedagogy, classroom management, and learner diversity.

SMED 52331: Teaching/Learning B: Social Studies 3 s.h.
Corequisites: SECD 03332 Prerequisites: SMED 52330 Minimum Grade of C
This second in a sequence of two three-credit courses is designed for teacher candidates majoring in one of the social studies disciplines and planning careers as K-12 social studies teachers. Building upon understandings of elementary and middle-grade content and instructional planning as developed in Teaching and Learning A, teacher candidates will learn to create standards-based social studies units and daily lessons for the middle and/or high school grades. In conjunction with a co-requisite practicum, this course includes both community- and public school-based experiences dealing with a range of topics necessary to building a functioning learning community in social studies classrooms, including standards-based lesson and unit planning, social studies pedagogy, classroom management, learner diversity, and ongoing professional development.

THD 07103: Voice For The Stage 3 s.h.
Prerequisites: THD 07105
This course introduces use of the vocal instrument for development of projection and stage vocal ability. Students examine the physical anatomy of breathing, resonation and articulation. The methodologies of Fitzmaurice, Linklater, Alexander, Berry, Rodenberg and other master voice teachers are used to guide students in finding the best approach to develop individual vocal effectiveness when applying their breath, voice and entire physical beings to text for staged performance.

THD 07105: Introduction To Performance 3 s.h.
This is designed as a first course in performance for majors in the Department of Theatre & Dance. It will stress basic techniques and fundamentals of movement and interpretation. Class exercises will help students to explore the dynamics of stage performance. This course lays the groundwork for advanced study. Open to Theatre Majors only.
THD 07106:  Speech And Dialects  3 s.h.
This course is an intense technical study of General American (GA) speech and stage dialects. The International Phonetic Alphabet (IPA) is the primary tool used to develop an understanding of GA speech versus individual regionalisms, and staged dialects. An emphasis is placed on improving students’ ability to speak in such a way as to assist them in attaining personal and professional goals as an actor or stage performer.

THD 07111:  Colloquium In Theatre I  .5 s.h.
These courses will provide a core experience for all majors. Through an on-going series of lectures, discussions, demonstrations and seminars, students will explore various aspects of Theatre Art and evaluate career options available to the theatre graduate. A maximum of 3 s.h. credit can be earned in colloquium, but not more than .5 s.h. in any one term.

THD 07112:  Colloquium In Theatre II  .5 s.h.
These courses will provide a core experience for all majors. Through an on-going series of lectures, discussions, demonstrations and seminars, students will explore various aspects of Theatre Art and evaluate career options available to the theatre graduate. A maximum of 3 s.h. credit can be earned in colloquium, but not more than .5 s.h. in any one term.

THD 07113:  Colloquium In Theatre III  0 s.h.
These courses will provide a core experience for all majors. Through an on-going series of lectures, discussions, demonstrations and seminars, students will explore various aspects of Theatre Art and evaluate career options available to the theatre graduate. A maximum of 3 s.h. credit can be earned in colloquium, but not more than .5 s.h. in any one term.

THD 07114:  Colloquium In Theatre IV  0 s.h.
These courses will provide a core experience for all majors. Through an on-going series of lectures, discussions, demonstrations and seminars, students will explore various aspects of Theatre Art and evaluate career options available to the theatre graduate. A maximum of 3 s.h. credit can be earned in colloquium, but not more than .5 s.h. in any one term.

THD 07115:  Colloquium In Theatre V  0 s.h.
These courses will provide a core experience for all majors. Through an on-going series of lectures, discussions, demonstrations and seminars, students will explore various aspects of Theatre Art and evaluate career options available to the theatre graduate. A maximum of 3 s.h. credit can be earned in colloquium, but not more than .5 s.h. in any one term.

THD 07116:  Colloquium In Theatre Vi  0 s.h.
These courses will provide a core experience for all majors. Through an on-going series of lectures, discussions, demonstrations and seminars, students will explore various aspects of Theatre Art and evaluate career options available to the theatre graduate. A maximum of 3 s.h. credit can be earned in colloquium, but not more than .5 s.h. in any one term.

THD 07130:  The Living Theatre  3 s.h.
This course helps students develop critical appreciation of the various dramatic media (stage, films, television, radio). By introducing them to aims and techniques as well as significant products, the course gives students insight into theatrical art, thereby enriching their enjoyment and sharpening aesthetic judgment.

THD 07135:  Oral Interpretation Of Literature  3 s.h.
This course studies the basic principles of vocal control applied to oral communication of various forms of literature. It emphasizes such vocal techniques as stress, pause, rate, etc. and these are coordinated with body and facial expression to achieve clarity of meaning and mood.

THD 07195:  Exploring Social Issues Through Theatre  3 s.h.
The student will study theatrical styles as a response to the problems of society. Issues like sexism, racism, aging, intercultural conflicts and the AIDS crisis will be explored as they appear in theatrical forms such as the problem play, comedy and the epic theatre.

THD 07201:  Introduction To Theatre And Dance  3 s.h.
Students study current and historical examples of Theatre and Dance with emphasis on the distinguishing characteristics of each form of performance and on the principles of temporal composition common to all linear or abstract performing art. The course stresses the fundamentals of interpretation and analysis essential to advanced work in performance, design and criticism.
THD 07203: Costuming I
1.5 s.h.
This course will present techniques by which stage costumes are constructed. Students will also be given an outline of the development of fitted clothing. A series of costuming projects will give students a basic understanding of costume design for the theatre.

THD 07205: Costuming II
Prerequisites: THD 07203
1.5 s.h.
This is a continuation of the study begun in Costuming I.

THD 07215: Experiencing Acting
3 s.h.
This course is for non-major students interested in exploring their talents. Through the use of improvisation, theatre games and scene projects, students examine how actors strengthen and use imagination, awareness and creativity, and how they analyze, prepare and perform a role.

THD 07230: Stagecraft Fundamentals
3 s.h.
Students are introduced to the technical aspects of producing theatre and dance. Topics addressed and hands-on learning focuses on Scenic Carpentry, Stage Lighting, Production Management and Sound Engineering. Every student gains practical training in production aspects related to the Department’s mainstage season. All students will learn to safely use tools and develop skills needed to works as a carpenter, electrician or on a run crew.

THD 07231: Stagecraft II
1.5 s.h.
Stagecraft II is a continuation of the study begun in Stagecraft I. (Spring semester)

THD 07232: Stagecraft III
Prerequisites: THD 07230 and THD 07231
1.5 s.h.
These courses concentrate on developing advanced skills in the various stagecrafts including carpentry, property construction and the development of electrics, sound and elevational drawings. Students fulfill assigned responsibilities for actual theatrical productions. (Fall Semester)

THD 07233: Stagecraft IV
Prerequisites: THD 07230 and THD 07231
1.5 s.h.
This course is a continuation of the study begun in Stagecraft III. (Spring semester)

THD 07234: Stagecraft V - Intermediate Concepts
Prerequisite: THD 07233
1.5 s.h.
Stagecraft V expands upon the work from Stagecraft III and IV, with an emphasis on taking on a leadership position in the production process. The course is based on developing an intermediate working knowledge in the following areas: production organization, shop tools, building processes, electric and sound systems. Students are expected to participate in a leadership role on a Department production. (Fall Semester)

THD 07235: Acting I (Majors Only)
Prerequisites: THD 07103
3 s.h.
This course covers elementary actor-training, designed to aid the student actor in identifying both strengths and weaknesses. Actor training exercises are designed to awaken the student actor’s sensibilities to creative expression (such as improvisations, theatre games, sensitivity exercises, characterization exercises and performance projects). Open to Theatre majors only; others by permission.

THD 07236: Acting II
Prerequisites: THD 07235
3 s.h.
An intermediate level acting course, Acting II deepens and extends the basic skills acquired in Acting I. Focusing mainly on improvisation and its application to character creation and role development, the course stresses the relationship between the creativity and spontaneity inherent in improvisation and the discipline and design necessary for the creation of a role from printed scripts.

THD 07240: Practicum - Performance Ensemble
0 to .5 s.h.
Under the supervision of Theatre/Dance performance faculty students participate as performers or directorial/choreographic assistants in department productions. The learning experience and work of the learning community is credited through this course. May be repeated for credit up to an accumulation of 3 s.h. This course is graded as Pass/No Credit.
THD 07241: Practicum - Production Ensemble 0 to .5 s.h.
Under the supervision of Theatre/Dance technical and design faculty students participate in department productions in technical and design capacities. The learning experience and work of the learning community is credited through this course. May be repeated for credit up to an accumulation of 3 s.h. This course is graded as Pass/No Credit.

THD 07245: Stage Makeup 1 s.h.
This course studies the techniques and styles of makeup for the theatre, through demonstration and laboratory work. Students are required to purchase an inexpensive student makeup kit.

THD 07250: Children's Theatre 3 s.h.
In this course, students study the techniques of producing plays with children and adult-produced plays for child audiences. It considers such topics as play and audience analysis, directing methods, technical production and techniques of working with and for children.

THD 07270: Theatre Study Off-Campus 1 to 6 s.h.
This course studies drama at important theatrical centers in the United States or abroad, supervised by faculty. It includes attendance at productions, discussions with practitioners, tours and specialized workshops, investigation of historical and cultural sites. Costs vary according to the center being studied and are borne by the student. May be repeated under a different subtitle.

THD 07275: Children's Theatre Workshop 3 s.h.
This course concentrates on the presentation of a children's show to be mounted and acted by Rowan students for South Jersey elementary school children. The college students will be involved in all phases of the production, including a "mini-tour" of the show following the production at Rowan University. This course may be repeated with consent of instructor. This course may not be offered annually.

THD 07300: Drawing And Rendering For The Theatre 3 s.h.
Prerequisites: THD 07232
This course introduces students to methods of presenting theatrical design ideas in two-dimensional formats. Students will learn such skills as perspective drawing, rendering in watercolor, gouache pencil or marker and/or using computer-aided drawing and painting. In addition, students will complete a portfolio to illustrate the skills learned.

THD 07301: African, African-American Theatre: Intercultural Definitions 3 s.h.
Explores the commonality, or difference of styles and visions, in African and African American Theatre, with works by contemporary African and African American playwrights, such as August Wilson, Wole Soyinks, Imamu Amiri Baraka, Susan Lori Parks, Efua Sutherland and Femi Osofisan. It will also examine the influences of play directors, actors and musicians (Hip-Hop, Jazz, Blues, etc.) who contribute to that aesthetic continuum. The practices, issues and achievements of these playwrights and their unique forms of theater shall be used to project a future for African American theatre in twenty-first century America. These works shall be used as signposts of stylistic and critical commentary. This is a lecture cum performance course in which students will be writing, making and performing their own Theatres of the future as final projects.

THD 07305: Drafting, CAD and Model Making for the Theatre 3 s.h.
Prerequisites: THD 07232
The course provides students with advanced opportunities to practice drafting skills in the preparation of designer's elevations and detail drawings in the production of working drawings for the scenic and electric shops. Students will use traditional drafting methods and tools as well as CAD techniques and machinery. This course may not be offered annually.

THD 07310: Foundations Of Theatrical Design 3 s.h.
Prerequisites: THD 07232
In this course, students study the elements that lay the foundation for a successful design career in the theatre. Beginning with an examination of the place of design in the theatre process, students then study the principles of visual composition and elements of design, and study playscripts in order to formulate an appropriate design. Students will also be introduced to the study of historical periods and styles of decor and get exposure to basic sketching and drafting of theatrical designs.

THD 07315: Reader's Theatre Workshop 3 s.h.
Prerequisites: THD 07135
In this course, students study the creative and adaptive processes involved in preparing and presenting literature on stage in a reader's theatre situation. Performances of the manuscripts compiled in the course also help develop the students' own interpretive skills beyond those which they acquired in the introductory course (Oral Interpretation of Literature). This course may not be offered annually.
Course Descriptions

THD 07325: Painting Scenery For The Theatre 3 s.h.
Prerequisite: THD 07232
Successful painting for the theatre involves techniques that allow for efficient execution of visual effects that read not from up close, but from a distance. In this course, the emphasis is on obtaining such 'tricks of the trade' and presenting that acquired knowledge through the completion of related projects.

THD 07335: Advanced Acting 3 s.h.
Prerequisites: THD 07236
This course makes an intensified study of characterization, while continuing developmental work in bodily and vocal control. It covers approaches to role study as well as the techniques of period acting styles. It combines theory and practice, including class and public performance. This course may not be offered annually.

THD 07336: Stagecraft Vi - Intermediate Concepts 1.5 s.h.
Prerequisite: THD 07234
This course is a continuation of the study begun in Stagecraft V. (Spring Semester)

THD 07338: Touring The Theatre Production 3 s.h.
Students study procedures in touring theatre or dance productions off campus. Students learn sets, properties, costume design and construction, lighting and sound, staging and performance consistency and ways of adapting to a variety of facilities and audiences. Students study promotion, organization and administration of tours. Open to students selected for the cast and crew of the production. May be repeated. This course may not be offered annually.

THD 07339: History Of The Theatre To 1700 3 s.h.
This course studies the important works and writers for the stage, together with the development of theatrical modes of presentation and their influences upon the drama of each period, from the beginnings of theatre in ancient Greece to 1700. Relationships are drawn between the developing theatre and the political and social history of the times.

THD 07340: History Of The Theatre 1700 To 1956 3 s.h.
This course is a continuation of THD07.339, bringing the study of theatre and drama from 1700 to the beginning of the modern period with Ibsen, Chekhov, Strindberg and Shaw, then following with German Expressionism, the emergence of American Theatre in the 1920's, the despair of the Great Depression, and the World War II era. (THD07.339 is not a prerequisite for this course.)

THD 07345: Rehearsal And Performance .5 s.h.
Prerequisites: THD 07236
This course prepares students for a role for public performance. Once cast, students will study production preparation from initial concept through the rehearsal process into performance, including the improvement of vocal and physical technique and its application to characterization. The course may be repeated one time.

THD 07350: Scene Design Studio 3 s.h.
Prerequisites: THD 07231
This course studies the relationship of the space/time arts to the nature and function of scenic design. Theory is combined and tested through practical renderings of various plans of the designer. This course may not be offered annually.

THD 07353: Stage Lighting Design And Practice 3 s.h.
Prerequisites: THD 07231
In this course, students become familiar with the essential elements of color theory, the physics of light, basic electricity, the characteristics of specific stage lighting instruments and dimming control equipment and procedure for designing lighting for a production. Practical experience is included through various types of design problems and work on college theatrical presentations. This course may not be offered annually.

THD 07356: Costume Design 3 s.h.
This course emphasizes the design of costume for the theatre. Costume and its relation to the character and the play are examined. Through a series of costumes projects, students explore the elements of design, figure drawing and costume history. This course may not be offered annually.

THD 07360: Musical Theatre 3 s.h.
This course studies the history of musical theatre, the contributions of artists who have contributed to the mature theatre and concludes with an analysis of musical theatre elements. It covers the origins of musical theatre, contributions of major practitioners of the form, current status of musical theatre and critical evaluation. This course may not be offered annually.
THD 07363: Singing For The Actor  
3 s.h.  
*Prerequisites: MUS 04118 or MUS 09100*
This course is designed to introduce the student actor to the techniques of singing for musical theatre. Students will learn and apply vocal exercises and warm-ups, proper breathing, and vocal support. Students will analyze song structure, read music, and perform the song in a musical theatre context. May be repeated up to 9 semester hours.

THD 07365: Theatre Management  
3 s.h.  
This course is an introduction to the economic and administrative function of commercial, repertory, educational and community theatre in the United States. Students study the role of the producer/manager in policy making, budgeting and operations, focusing on legal regulations, personnel, facilities, financing, scheduling, public relations and promotion. Non-theatre majors should have THD 07.130 or permission of the instructor. This course may not be offered annually.

THD 07370: Independent Study  
1 to 6 s.h.  
This course allows students to pursue an independent project, as determined by student and adviser. It is open to speech majors and minors and to others in related arts by consent of the instructor.

THD 07375: Theatre Workshop  
3 s.h.  
This workshop studies the theoretical and practical aspect of theatre arts through supervision of problems in performance, set design, construction, lighting, costume and makeup, business management and directing. By permission of Department only. (May be repeated once; maximum of 6 hrs.)

THD 07380: Technical Production And Organization  
3 s.h.  
*Prerequisites: THD 07232 and THD 07233*
This course is an advanced study of Technical Production. It introduces the process, tools and skills needed to organize and run a production from the upper management level of the Technical Director. Topics covered are structural design, building procedures, the proper and safe use of building materials, personnel management and organizational skills. The class will consist of a variety of theoretical and practical projects.

THD 07390: Technical Supervision I  
.5 s.h.  
*Prerequisites: THD 07230, THD 07231, THD 07232 and THD 07233*
Students learn the artistic and administrative responsibilities of technical staff supervisors on a theatre production team. Positions studied include assistant technical director, stage manager, master carpenter, master electrician, sound engineer, properties master, and wardrobe supervisor, with equal emphasis placed upon understanding a job’s responsibilities and the techniques of supervising subordinate personnel. Students will be required to function successfully in one assigned supervisory capacity for a mainstage production.

THD 07391: Technical Supervision II  
.5 s.h.  
Further training and experience in supervising technical production work. Students will be working on a different production and in a different capacity than in Technical Supervision I. These two courses may be taken in either order.

THD 07405: Seminar In Theatre  
3 s.h.  
Restricted to Theatre and Dance majors, this course offers students a choice of specialized study of a particular interest area in theatre or dance.

THD 07410: Internship In Theatre  
3 to 15 s.h.  
A semester’s field experience offers the advanced student opportunities to develop theatre skills in supervised on-the-job situations. Students are placed in an appropriate theatre to obtain practical training. By department permission only. Students apply to the department the beginning of the semester prior to the internship. Fall/Spring internships are 15 s.h.; Summer internships, 12 s.h.

THD 07430: Directing I  
3 s.h.  
*Prerequisites: THD 07231*
This course studies theories and techniques of script analysis and its translation into dramatic action and dramatic sound on the stage, including such concepts as composition, movement, pacing and the development of basic acting ability. Practical directing experience will be utilized.

THD 07431: Directing II  
3 s.h.  
*Prerequisites: THD 07430*
This course is a continuation of Directing I in which the skills studied in that course are deepened and extended. In addition to studying techniques of script analysis and staging in greater detail, students investigate various production styles and methodologies. A major portion of time is devoted to a workshop situation in which students stage scenes and submit them to class critique. This course may not be offered annually.
Course Descriptions

THD 07435: Creative Dramatics 3 s.h.
This course covers the philosophy underlying speech and dramatic activities for children. Methods and materials for creative drama, story telling, role playing, word games, listening and pantomime are studied and analyzed. Students participate in demonstrations in the classroom.

THD 07436: Stagecraft VII - Advanced Concepts 1.5 s.h.
*Prerequisite: THD 07436*
Stagecraft VII continues the work in the Stagecraft Sequence, with an emphasis on the professional execution of a technical production assignment from concept through realization. (Fall Semester)

THD 07437: Stagecraft VIII - Advanced Concepts 1.5 s.h.
*Prerequisite: THD 07436*
Stagecraft VIII continues the work in the Stagecraft Sequence, with an emphasis on the professional execution of a technical production assignment from concept through realization. (Spring semester)

THD 07440: Contemporary World Theatre - WI 3 s.h.
*Prerequisites: COMP 01112 or ENGR 01201*
Designed to examine significant developments in world theatre and drama since 1956, this course focuses on writers, actors and groups who have influenced theatre in the last half century. Starting with the angry young men and women of England in the 1950s, the course moves through the work of the absurdist, the Civil Rights Movement, Vietnam and the Age of Protest (the Rock revolution). It delves into environmental theatre, the Women’s Movement, gay and lesbian theatre, the AIDS epidemic, and considers postmodern theatre practice throughout the world.

THD 07460: Senior Project In Theatre Arts 2 s.h.
*Prerequisite: for senior-level majors only.*
Designed as a capstone experience for Theatre Arts. Selecting a project within a theatre specialty (Performance, Design/Technical, History/Criticism), and working with a faculty adviser, the student will conceive, research and execute a specially devised work for public showing or local publication.

THD 08126: Movement For The Actor 3 s.h.
Students study the fundamentals of movement as applied to stage movements, communication and characterization. The course covers physical discipline, relaxation, shaping, movement, exploring space, movement in ensemble, emotion and the body, gesture and communication, and physical characterization. Individual and group exercises assist students in developing a physical technique for the actor in action. This course may not be offered annually.

THD 08135: Elements Of Dance 3 s.h.
This course provides training at the elementary level of technique in ballet, jazz and modern dance. It explores movement in time, space and energy relationships, emphasizing individual and group creative experiences through improvisations.

THD 08140: Dance Improvisation I 1.5 s.h.
The course explores the creation of spontaneous movement experiences with the purpose of increasing body awareness, movement invention and movement creativity. This course is offered once annually. Effective Fall 2003.

THD 08141: Dance Improvisation II 1.5 s.h.
*Prerequisites: THD 08140*
The course continues and further develops skills in the creation of spontaneous movement experiences with the purpose of increasing body awareness, movement invention and movement creativity. This course is offered once annually.

THD 08142: Contact Improvisation 3 s.h.
This course provides experiences in improvisational duet dancing involving weight sharing, touch, lifting, carrying, and active use of momentum. Activities develop sensitivity to partnering and spontaneous creativity.

THD 08146: World Dance Forms 3 s.h.
This is a movement course which introduces students to a broad spectrum of dances from Asia, Europe, the Middle East, Africa, and the Americas. Emphasis is placed upon learning and performing dances from various countries throughout the world. The socio-historical context within which each dance form evolved is also examined. No previous training in dance is required.
THD 08151: Ethnic And Character Dance 3 s.h.
This course studies dance, music, customs and other cultural manifestations of special ethnic regions. It emphasizes the application of the folk art forms for theatre use. Among the dance forms studied are Scandinavian, Central European, African, Latin American, Mediterranean. Each semester focuses on two or more of these dance forms.

THD 08190: Ballroom Dance 3 s.h.
This movement course introduces the student to Ballroom Dance and its various forms: foxtrot, waltz, swing, jitterbug, disco, club, samba, merengue, rumba, cha cha, and tango. Emphasis is placed upon basic steps, body placement, style, musicality, choreography, and the fundamentals of partnering. Observing, critiquing, and researching ballroom dance are also included within the course.

THD 08202: Fundamentals Of Tap 3 s.h.
This introductory course covers the fundamentals of tap dance, an indigenous American art form with African, Irish, and English roots. Emphasis will be placed on technique, musicality, and style. The course introduces center floor exercises, traveling patterns, and a variety of steps and combinations. Opportunities will be provided to observe and perform tap dance, as well as research history.

THD 08203: Advanced Tap Dance 3 s.h.
Prerequisites: THD 08202
This course continues the study of tap on an advanced level. May be repeated for credit up to an accumulation of 9 s.h.

THD 08222: Dance For The Musical Theatre 3 s.h.
This course is an intermediate level experience of technical training in stylized jazz dances used in Broadway musical shows. Students have the opportunity to mount excerpts of dance routines from various eras and to perform them for the university community.

THD 08225: Dance Composition I 3 s.h.
Prerequisites: THD 08237
This course provides a working knowledge and understanding of the fundamental elements involved in the craft of composing a dance. It emphasizes space, time and dynamics. Short solo and group pieces are presented in an informal setting. This course may not be offered annually.

THD 08236: Fundamentals of Modern Dance 3 s.h.
Prerequisite(s): None
This course is designed for the student interested in beginning to master the discipline of modern dance technique. The course draws from the repertoires of recognized modern dance artists who have established a specific movement vocabulary. Students have an opportunity to analyze various techniques for personal development and the expansion of an articulate movement vocabulary.

THD 08237: Modern Dance I 3 s.h.
Prerequisite(s): Permission of Instructor/BA in Dance Major Only
This course is designed for experienced students with technical skills in contemporary dance at the intermediate level. It focuses on the theory and practical application of movement practice including rhythmic structures, spatial awareness and kinetics with emphasis on aesthetic qualities that lead to performance. This course is offered annually.

THD 08246: Fundamentals Of Ballet Dance 3 s.h.
Students are introduced to the vocabulary and techniques of ballet movement with emphasis on body alignment and effective methods for gaining strength and flexibility necessary for proper ballet deportment. It includes barre work, centre floor and the basic elements of classical ballet vocabulary.

THD 08247: Advanced Ballet 3 s.h.
Prerequisites: THD 08246
An advanced level of technique in ballet, this course includes barre (bar) and centre floor and continues to build on the elements of classical ballet. May be repeated for credit up to an accumulation of 9 s.h.

THD 08256: Fundamentals Of Jazz Dance 3 s.h.
An introduction to a cross-section of jazz techniques derived from pioneer jazz dancers, this course emphasizes movement styles and jazz rhythms.
Course Descriptions

THD 08257: Advanced Jazz Dance 3 s.h.
Prerequisites: THD 08256
This course is designed for students interested in mastering movement skill in jazz dance. It emphasizes theoretical and practical understanding of the jazz dance form. May be repeated for credit up to an accumulation of 9 s.h.

THD 08270: Lecture/Demonstration Production 3 s.h.
Prerequisites: THD 08237
This course offers students an opportunity to experiment with improvisation and a variety of choreographic approaches using the elements of dance. It provides students with the performing experiences necessary for choreographing and producing short dance pieces. Resultant productions are performed as lecture/demonstrations throughout public and private schools of South Jersey. This course may not be offered annually.

THD 08311: African Influences In American Dance 3 s.h.
This is a movement and theory course which surveys various dance forms indigenous to African and African-American cultures. Emphasis is placed upon the evolution and contribution of African-derived dance forms within America. The richness and complexity of African aesthetics as embodied within dance in America are highlighted. No previous dance training is required.

THD 08315: Creative Dance For Children 3 s.h.
Utilizing functional movement experiences, this course emphasizes creative expression and its relationship to the aesthetic development of the young child. Students examine and analyze pertinent research materials in addition to the laboratory experiences. This provides a basis for students to relate creative inventiveness to young children. This course may not be offered annually.

THD 08320: Dance Notation 3 s.h.
Prerequisites: THD 08236 and THD 08246
This course introduces students to a study and practice of reading and recording dance movements by means of symbols. It offers an opportunity to interpret dance notation scores of simple ballet, folk, and modern dance. This course may not be offered annually.

THD 08337: Modern Dance III 3 s.h.
Prerequisites: THD 08378
This course is designed for students interested in mastering the discipline of modern dance technique. This course emphasizes alignment, somatic release and the application of movement concepts as applied to advanced level dance technique. This course is offered annually.
COMP 01000: Improving Personal Writing Skills 3 s.h.  
This developmental writing course helps students eliminate major writing problems with essay organization, support, and mechanics. The course improves students' writing prior to enrollment in College Composition I. Students' progress is evaluated on the basis of a portfolio of their semester's work. A writing test determines student placement.

COMP 01010: Writing Lab Experience 3 s.h.  
Students who have failed College Composition I or Integrated College Composition I may be referred to a 3-credit course called Writing Lab Experience. These students receive an Incomplete grade for Freshman Composition on their transcript. Students who successfully complete Writing Lab Experience are awarded a Pass for WLE, and the incomplete in the CCI or Integrated course is replaced with a grade. Writing Lab Experience credits do not count towards graduation or General Education requirements. The course is restricted to students in the First-Year Writing Program.

COMP 01020: Pre-College Writing 3 s.h.  
This is a preparatory, non-credit, five-week writing course that introduces students to college level writing practices. It provides a non-graded environment where students practice writing as multi-stage processes of generating, developing, and refining ideas clearly, and it focuses on instruction of grammar and mechanics within the context of students' writing. Students are placed in this course through the Educational Opportunity Fund program based on Department of Writing Arts placement criteria. Students who are successful in this course will move on to either Foundations of College Writing (COMP 01010) or Intensive College Composition I (COMP 01105).

COMP 01030: Foundations For College Writing 3 s.h.  
This non-credit writing course is portfolio based and introduces students to college level writing and to composing practices that emphasize multi-stage writing through multiple modes of composition and reflection. It provides an intensive focus in grammar and mechanics within the context of students' writing, and it guides students to produce focused and coherent writing. Students are placed in this course based on department placement criteria. Upon successful completion of this course, students move to Intensive College Composition I (Comp 01105).

COMP 01105: Intensive College Composition I 4 s.h.  
**Prerequisites:** Appropriate placement score or COMP 01103  
This course is the four-credit equivalent of College Composition I (COMP 01111) that allows students additional time to develop the same writing competency required of College Composition I. This course introduces students to a variety of writing forms and emphasizes writing as a recursive process of exploring, researching, drafting and revising. Students produce purposeful, literate, well-developed, and informed writing that requires critical reading, thinking and writing activities. The course also emphasizes responsible evaluation and use of information. Course requirements include a portfolio comprised of works created during the semester. Students are placed in the course based on the Writing Arts Department placement criteria. Passing this course fulfills the College Composition I (COMP 01111) General Education requirement.

COMP 01111: College Composition I 3 s.h.  
**Prerequisites:** Appropriate placement score  
This course introduces students to a variety of writing forms and emphasizes writing as a recursive process of exploring, researching, drafting and revising. Students produce purposeful, literate, well-developed, and informed writing that requires critical reading, thinking and writing activities. The course also emphasizes responsible evaluation and use of information. Course requirements include a portfolio comprised of works created during the semester. Students are placed in the course based on the Writing Arts placement criteria.

COMP 01122: College Composition II 3 s.h.  
**Prerequisites:** COMP 01111 or COMP 01105 or HONR 01111  
This course builds on the concepts and approaches in College Composition I (COMP 01111) and/or Intensive College Composition I (COMP 01105). The course emphasizes argumentation and information literacy. It introduces students to argumentative strategies, asks them to identify and analyze forms of argumentation, and requires them to write a variety of well-researched and ethically responsible arguments. Students will work to become independent researchers who can find relevant information from a variety of sources (both academic and non-academic, traditional text and digital) and evaluate...
and present that information to an academic audience. Course requirements include a portfolio comprised of works created during the semester.

ESL 08110: English As A Second Language I 3 s.h.
Developed for students whose native language is not English, this course places emphasis on listening and speaking while developing skills through practice of reading and writing in English. The course includes cultural topics to facilitate students' adaptation to the American educational environment. This course may not be offered annually.

ESL 08111: English As A Second Language II 3 s.h.
This is a mid-level course for students learning English as a second language. It helps students acquire increased skill in English usage, particularly written English. The course focuses on sentence structure and other grammatical concerns such as verb formation and pronoun reference. There is also some emphasis on spoken English. Students continue to discuss cultural topics while improving their ability to read and write in the target language of English.

ESL 08112: English As A Second Language III 3 s.h.
This course helps non-native students succeed in college by developing increased competence in the use of English. Students read and write in English, discussing differences between native languages and English. They also discuss writing formats generally encountered in college. The course offers further examination of English syntax and stresses building an English vocabulary.

ESL 08115: Basics Of Academic English For Non-Native Speakers Of English 9 s.h.
This developmental course will introduce English language learners to the academic English skills needed to succeed in college. Using an integrated skills language approach, students will improve in all language skills as they learn to write various genres of essays while also offering further examination of English syntax and vocabulary building.

ESL 08120: Advanced Academic English For Non-Native Speakers Of English 9 s.h.
This course is designed to further develop academic English Skills for English language learners so that they are prepared to succeed in college. While exploring cross-cultural topics of interest, students will focus on developing a more complex understanding and use of academic writing. With the emphasis on writing skills, students will hone their library and information literacy skills needed for college.

WA 01200: Introduction To Writing Arts 3 s.h.
Prerequisites: COMP 01111 and COMP 01112
Introduction to Writing Arts familiarizes students with the disciplinary underpinnings of Writing Arts, providing a background in the history of writing, current writing theories, writing as technology, and the writing professions. The course covers these issues within the context of the Writing Arts major, enabling students to situate themselves in a community of writers and language professionals and preparing them for upper-level coursework.

WA 01300: The Writer's Mind - Wi 3 s.h.
Prerequisites: COMP 01112 and 45 credits required
The Writer's Mind increases students' understanding of themselves as writers by learning craft-specific approaches to writing, and by developing critical awareness of their own and others' writing. Working in different genres of writing, students will gain experience in effective revision strategies, in analyzing audience, and in visual aspects of the printed or electronic page.

WA 01301: Writing, Research & Technology 3 s.h.
Prerequisites: WA 07200 with concurrent enrollment allowed, COMP 01112, and 60 credits required.
This course presents the rhetorical, social, and practical dimensions of writing and researching in networked contexts. Students focus both on the roles an individual creates and maintains when writing for different cybermedia formats and the kinds of conventions that exist in systems like the World Wide Web, listservs, e-mail, and hypertext. A web-based research project in a concentrated area of writing for a particular electronic community demonstrates students' ability to communicate on line.

WA 01302: Introduction To Technical Writing 3 s.h.
This course introduces students to both the field of technical writing and the uses of technical writing within a variety of professions. Students will learn how technical writers use document design strategies based on rhetorical principles to respond to communication challenges. Through practice with a variety of genres, students will gain experience with audience analysis, communication ethics, research, collaboration, professional style, and editing. The course culminates in a writing project based on a professional, academic, or community issue of the student's choosing. Students are encouraged, and will be assisted, in designing projects that reflect their professional interests.
Course Descriptions

WA 01304: Writing With Style-Wi 3 s.h.
Prerequisite: COMP 01112 and 45 credits required
Emphasizing prose style, this course builds upon the skills of organization and development covered in College Composition I and II. It gives special attention to tone, diction, sentence structure, audience, and ultimately, to the evolution of a personal voice. Students write frequently, receive instructor and peer feedback, and learn to analyze and edit both professional and non-professional essays.

WA 01311: Research Practicum In Writing Arts I 1 s.h.
Prerequisite: Completion of 75 hours, Approval of Writing Arts Dept. Advisor minimum 2.5 GPA
Students apply the theories and methodology learned in Writing Arts courses to a research mentorship with a member of the department faculty. Students keep a detailed log of working hours, prepare a portfolio representative of their practicum experience, write an analytical critique of the practicum, and are evaluated by their faculty mentor as well as the practicum supervisor. May be taken concurrently with WA 01312 and/or WA 01313.

WA 01312: Research Practicum In Writing Arts II 1 to 3 s.h.
Prerequisite: Completion of 75 hours, Approval of Writing Arts Dept. Advisor and minimum 2.5 GPA
Students apply the theories and methodology learned in Writing Arts courses to a research mentorship with a member of the department faculty. Students keep a detailed log of working hours, prepare a portfolio representative of their practicum experience, write an analytical critique of the practicum, and are evaluated by their faculty mentor as well as the practicum supervisor. May be taken concurrently with WA 01311 and/or WA 01313.

WA 01313: Research Practicum In Writing Arts III 1 s.h.
Prerequisite: Completion of 75 hours, Approval of Writing Arts Department Advisor and Minimum 2.5 GPA
Students apply the theories and methodology learned in Writing Arts courses to a research mentorship with a member of the department faculty. Students keep a detailed log of working hours, prepare a portfolio representative of their practicum experience, write an analytical critique of the practicum, and are evaluated by their faculty mentor as well as the practicum supervisor. May be taken concurrently with WA 01311 and/or WA 01312.

WA 01315: Writing With Technologies 3 s.h.
Prerequisite: COMP 01112 and 60 earned credits.
Writing with Technologies provides students with a theoretical basis for understanding the ways technologies - past, present, and future - shape the collaborative construction of meaning inside and outside the classroom. Students are encouraged to expand their repertoire of technologies and conduct research on contemporary writing practices to increase critical awareness of the affordances and constraints writing technologies make available to them as future educators.

WA 01320: Internship I In Writing Arts 3 to 6 s.h.
Prerequisite: 75 credits required and Writing Arts major with 2.5 Major GPA
Under professional supervision in the field, students practice theories and skills learned in the classroom. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum, and are evaluated by their faculty supervisor.

WA 01321: Internship II In Writing Arts 3 s.h.
Prerequisite: 75 credits required and Writing Arts major with 2.5 Major GPA
Under professional supervision in the field, students practice theories and skills learned in the classroom. Students keep a detailed log of working hours, prepare an extensive portfolio, write an analytical critique of the practicum, and are evaluated by their faculty supervisor.

WA 01370: Professions In Writing Arts: Post-Graduate Options 1 s.h.
Prerequisites: WA 07200 and 30 earned hours
Professions in Writing Arts: Post-Graduate Options introduces students to the various and wide-ranging opportunities available to writing arts students by exploring career, graduate school and other professional options in the field of writing. Class topics may include statements of purpose and letters of application; internships, field experience, and volunteerism; and publishing opportunities. Professionalism and entrepreneurial approaches to job seeking are also emphasized. Discussions and workshops are supplemented by guest speakers and readings.

WA 01400: Writing For The Workplace-Wi 3 s.h.
Prerequisite: 75 credits required
Writing for the Workplace gives students practice in the writing activities common to most careers. Assignments include resumes and cover letters, field and progress reports, abstracts of professional articles, and proposals. Students can also expect to deliver one or two brief oral presentations. The course is restricted to juniors and seniors.
Course Descriptions

WA 01401: The Writer's Mind
Prerequisites: COMP 01112 and 45 credits required
3 s.h.
The Writer's Mind increases students' understanding of themselves as writers by learning craft-specific approaches to writing, and by developing critical awareness of their own and others' writing. Working in different genres of writing, students will gain experience in effective revision strategies, in analyzing audience, and in visual aspects of the printed or electronic page.

WA 01405: Senior Seminar: Evaluating Writing
Prerequisites: COMP 01112 and WA 07200 and 90 credits required
3 s.h.
This course examines issues and methods of assessing writing. Students will explore a wide variety of tools used to evaluate writing, such as portfolio and holistic assessment, and they will discuss the validity and reliability of many assessment models.

WA 01408: Writing As Managers
Prerequisites: COMP 01112 and 45 credits required
3 s.h.
This course provides Management students with extensive practice in preparing the written materials required by common management activities. Assignments include preparing the written materials required for OSHA compliance, in disciplinary situations, in alleged sexual harassment situations, and customer service. Other specific topical assignments will be developed to respond to changes in the education needed by Management students.

WA 01409: Tutoring Writing
3 s.h.
This course provides students theory and practice in tutoring writing at all educational levels. It covers the writing process, the particulars of the tutorial relationship and issues of working with writers from a variety of backgrounds and abilities. It is recommended for students who are presently engaged in the tutoring of writing and those who may teach writing in one-on-one or small-group settings in the future.

WA 01410: Independent Study In Writing Arts Program
3 to 6 s.h.
This course provides students with an opportunity to work independently on specialized topics under the guidance of a faculty member. Generally, this course can not be substituted for any course offered by a department in the College of Communication. Permissions are needed from the Department Chair and the Dean.

WA 01415: Situating Writing
Prerequisite: COMP 01112 and 75 earned credits
3 s.h.
Situating Writing provides students with the theoretical and practical tools they will need to work with young writers by introducing methods of teaching and evaluating writing that are explicitly writer-centered. Students will develop their own understandings of the process while learning how to respond to writing in ways that are situation-specific. Students will also improve their own writing by collaborating with other writers, giving and receiving feedback on work in progress, and using a range of technologies that facilitate feedback and revision.

WA 01450: Writing Arts Portfolio Seminar
Prerequisites: WA 01300 and WA 01301 and WA 01405
1 s.h.
Seniors majoring in Writing Arts will have an opportunity to reflect on the work undertaken as part of the writing arts major. The course asks students to construct and submit a portfolio consisting of work products both from those courses included in the core and from a selection of courses in the required elective clusters. A written reflection on the intellectual and learning experience derived from these courses as evidenced by the items included comprises the written requirement for this course.

WA 07290: Creative Writing I
Prerequisite: COMP 01111 or COMP 01105
3 s.h.
This course concentrates on developing students' skills in writing various kinds of poems and in developing fiction techniques. In addition to exploring different poetic forms, students learn how to create characters, establish conflict, and develop a plot while writing a short story. Students examine the work of professional poets and fiction writers.

WA 07291: Creative Writing II
Prerequisite: WA 07290 or CRWR 07290
3 s.h.
Building upon the foundations learned in Creative Writing I, students in Creative Writing II will engage in more specific practice in the conventions of short story writing, creative nonfiction and poetry. Students will have directed assignments encouraging experimentation in multiple genres but will prepare a final portfolio that may give more emphasis to a genre of their choice. Special emphasis will be placed on reading examples of these conventions and learning how writers graft or borrow techniques (dialogue, dramatic monologue, voice, description) from one genre to apply it in another.
WA 07309: Writing Children's Stories 3 s.h.
Prerequisite: 30 credits required
This course focuses on fiction written for juveniles and young adults. Students examine the rich variety of literature published for young people. They do exercises, write complete stories, critique each other's writing in workshops and meet with the teacher for individual conferences on their work. They also learn how to submit manuscripts to magazine and book publishers.

WA 07391: Writing Fiction 3 s.h.
Prerequisites: WA 07290 or WA 07291 or CRWR 07290 or CRWR 07291
This class will provide a forum for students to explore the strategies fiction writers use in creative expression, especially in writing the short story. Students will develop an analytical vocabulary that allows them to read, interpret, and evaluate the work of other fiction writers. A major portion of the class will be given over to workshop sessions, where students can share and evaluate each other's work. Students will also become familiar with a body of published short stories that illustrate techniques of expression such as setting, point of view, characterization, dialogue, and other elements of fiction.

WA 07392: Fundamentals Of Playwriting 3 s.h.
Prerequisites: WA 07291 or CRWR 07291 or Permission of Instructor
This course covers the methods of developing and writing a play. During the course, students analyze plays, and outline and work on the draft of a full-length play. This course may not be offered annually.

WA 07395: Writing Poetry 3 s.h.
Prerequisite: WA 07290 or CRWR 07290
This class will provide a forum for students to explore the strategies poets use in creative expression. The students will develop an analytical vocabulary that allows them to read, interpret, and evaluate the work of other poets. A major portion of the class will be given over to workshop sessions, where students can share and evaluate each other's work. Students will also become familiar with a body of published poetry that illustrates techniques of expression such as imagery, metaphor, voice, tone, the music and strategy of the line, and other elements of poetry.

WA 07410: Tutoring Writing 3 s.h.
This course provides students theory and practice in tutoring writing at all educational levels. It covers the writing process, the particulars of the tutorial relationship and issues of working with writers from a variety of backgrounds and abilities. It is recommended for students who are presently engaged in the tutoring of writing and those who may teach writing in one-on-one or small-group settings in the future.
Organization of the University

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Thomas A. Cavalieri
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Deputy Emergency Management Coordinator

Angelastro, John F.

Director of Information Security

Arnold, Lorin

Dean, College of Communication and Creative Arts

Au, Valerie

Director of Advancement Services

Avery, Carol

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Baglio, John

Bursar

Barkhamer, Kimberly

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Basantis, Melanie

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Director, University Web Services

Betts, Albert

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Blank, Kenneth J.

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Blow, Dennis

Associate Bursar

Braeunig, Raymond

Chief Compliance and Privacy Officer

Brasteter, Christine

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Cardona, Jose

Vice President for University Relations

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Ciocco, Michael D.

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Cloyd, Melanie K.

Associate Director of Organizational Development and Training

Collins, Dennis P.

Director of Facilities, Cooper Medical School

Conners, Deanne

Managing Administrative Assistant, Cooper Medical School
<table>
<thead>
<tr>
<th>Name</th>
<th>Title/Position</th>
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<tbody>
<tr>
<td>Connor, Joanne M.</td>
<td>Executive Assistant to the President</td>
</tr>
<tr>
<td>Daquila, August J.</td>
<td>Manager of Financial Reporting and Analysis</td>
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<tr>
<td>Davis, John A.</td>
<td>Managing Assistant Director, Custodial Services</td>
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<tr>
<td>Dayton, Catherine B.</td>
<td>Director of Admissions, Cooper Medical School</td>
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<tr>
<td>De, Arijit</td>
<td>Campus Planning</td>
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<tr>
<td>DeVecchis, Theresa A.</td>
<td>Managing Administrative Assistant, Office of the President</td>
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<tr>
<td>Deehan, Christine</td>
<td>Director of University Events</td>
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<tr>
<td>Dersch, Melissa G</td>
<td>Development Director</td>
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<tr>
<td>Douglas, Travis W.</td>
<td>Assistant Vice President for Residential Learning and University Housing</td>
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<tr>
<td>English, Redmond S.</td>
<td>Campus Database Administrator, Enterprise Information Systems</td>
</tr>
<tr>
<td>Ennis-Soreth, Michelle</td>
<td>Dean’s Fellow for Program Evaluation</td>
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<tr>
<td>Farney, Steven C.</td>
<td>Director of Operations, Strategic Enrollment Management - Director of Operations</td>
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<tr>
<td>Farrell, Deanne</td>
<td>Director of Corporate and Foundation Relations</td>
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<tr>
<td>Ferraina, Diane</td>
<td>Managing Administrative Assistant, Office of the Provost</td>
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<tr>
<td>Ferrarie, Joseph A.</td>
<td>Manager of Information Technology Services, Cooper Medical School</td>
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<tr>
<td>Ferraro, Gloria J.</td>
<td>Managing Administrative Assistant, Office of Vice President for Government Relations/General Counsel</td>
</tr>
<tr>
<td>Fields, Jeffrey M.</td>
<td>Associate Director of Admissions and Enrollment Services, College of Graduate and Continuing Education</td>
</tr>
<tr>
<td>Frierson, Muriel</td>
<td>University Registrar</td>
</tr>
<tr>
<td>Gallia, Thomas J.</td>
<td>Vice President Emeritus/Senior Advisor to the President</td>
</tr>
<tr>
<td>Gandy, Kyle A.</td>
<td>Director of Energy Management/University Engineer</td>
</tr>
<tr>
<td>Gaymon, James</td>
<td>Assistant Vice President for Student Diversity</td>
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<tr>
<td>Gilmore, Dan Lewis</td>
<td>Director of Athletics</td>
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<tr>
<td>Giunta, Karen</td>
<td>Academic Affairs Fiscal Manager</td>
</tr>
<tr>
<td>Glass, John B</td>
<td>Director of Environmental Health and Work Safety</td>
</tr>
</tbody>
</table>

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**Executive Administration**

Connor, Joanne M.  
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Gilmore, Dan Lewis  
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Giunta, Karen  
*N/A*

Glass, John B  
*BS, Rutgers University-Cook College, MS, Temple University*
## Executive Administration

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Gollihur, Rebecca Jo</td>
<td>Assistant Dean Academic Services, College of Graduate and Continuing Education</td>
</tr>
<tr>
<td>Gordy, Pamela</td>
<td>Interim Associate Director of Financial Aid</td>
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<tr>
<td>Guerra, Erick J.</td>
<td>Assistant Dean for Research and Grants</td>
</tr>
<tr>
<td>Guiteau, Gardy J.</td>
<td>Assistant Director of Mentoring and Academic Enrichment</td>
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<tr>
<td>Gustin, Joan K.</td>
<td>Managing Administrative Assistant, Office of the President</td>
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<tr>
<td>Haines, Laurie</td>
<td>Certification Specialist, College of Education</td>
</tr>
<tr>
<td>Hand, John J.</td>
<td>Vice President for Strategic Enrollment Management</td>
</tr>
<tr>
<td>Harvey, Roberta</td>
<td>Vice President for Academic Affairs</td>
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<tr>
<td>Hasit, Cindi</td>
<td>Assistant Dean for Faculty and Student Assessment and Development</td>
</tr>
<tr>
<td>Haynes, Julie</td>
<td>Associate Dean, College of Communication and Creative Arts</td>
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<tr>
<td>Henderson, James</td>
<td>Director of Enterprise Information Services</td>
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<tr>
<td>Houshmand, Ali</td>
<td>President</td>
</tr>
<tr>
<td>Jones, Derek L.</td>
<td>Interim Station Manager, WGLS</td>
</tr>
<tr>
<td>Jones, Richard</td>
<td>Vice President for Student Life/Dean of Students</td>
</tr>
<tr>
<td>Jordan, James C.</td>
<td>Director of the MBA Program, Rohrer College of Business</td>
</tr>
<tr>
<td>Kantner, Michael</td>
<td>Assistant Vice President for Public Safety and Emergency Management</td>
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<td>Kempf, Penny A.</td>
<td>Associate Director of Athletics</td>
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<td>Klein, Bruce</td>
<td>Director of Network and System Services</td>
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<td>Kocher, William</td>
<td>Chair, Department of Biomedical Sciences, Cooper Medical School</td>
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<td>Kozachyn, Stephen M.</td>
<td>Director of Rohrer College of Business Outreach</td>
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<td>Kuerzi, Ken</td>
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<td>Director of Facilities Finance and Administration</td>
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<td>Lalovic-Hand, Mira</td>
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<td>Law, Frances</td>
<td>Managing Administrative Assistant, Vice President for University Advancement</td>
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<tr>
<td>Layton, Reed</td>
<td>Senior Director of Public Safety/Director of University Police</td>
</tr>
</tbody>
</table>

B.A., M.A., University of Chicago

B.A., Rowan University; M.S., Walden University

Ph.D. & M.A., Physics, Princeton University; B.S. Honors in Engineering Physics, UC Berkeley

B.A., Brandeis University; M.Ed., University of Massachusetts-Amherst

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B.S., J.D., Florida State University

B.S. Belgrade University, Belgrade, Serbia; M.S., PhD. University of Cincinnati

B.A., Rowan University

A.A., Gloucester County Community College
<table>
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<tr>
<th>Name</th>
<th>Title</th>
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<tbody>
<tr>
<td>Lecakes, George D.</td>
<td>Director, Virtual Reality Laboratory, South Jersey Technology Park</td>
</tr>
<tr>
<td>Lombardi, Marion J.</td>
<td>Chief Student Affairs Officer, Cooper Medical School</td>
</tr>
<tr>
<td></td>
<td>BS/MS. The University of Scranton, Scranton, PA.</td>
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<td>Lopez, Lydia R.</td>
<td>Managing Administrative Assistant, Office of the Vice President for Facilities and Operations</td>
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<td>Lovegrove, James</td>
<td>Director of Accounts Payable</td>
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<tr>
<td>Lowman, Anthony</td>
<td>Dean of College of Engineering</td>
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<td></td>
<td>B.S. U of Virginia; Ph.D. Purdue</td>
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<tr>
<td>Mandayam, Shreekanth A.</td>
<td>Vice President for Research</td>
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<td>B.E., Bangalore University, India; M.S., Ph.D., Iowa State University</td>
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<td>Markowitz, Lawrence</td>
<td>Director, Hollybush Institute</td>
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<td>B.A., SUNY-Oneonta; M.A., American University; Ph.D., University of Wisconsin-Madison</td>
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<td>Marshall, Lori</td>
<td>Assistant Vice President for University Relations</td>
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<td>B.S., Evangel College; M.A., Rowan University</td>
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<tr>
<td>Martin, Walton K.</td>
<td>Director of Conference Services and University Scheduling</td>
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<td></td>
<td>B.A., Villanova University; M.B.A., Eastern University</td>
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<tr>
<td>McCafferty, Jacqueline</td>
<td>Director English Language Programs</td>
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<tr>
<td></td>
<td>B.A., Ithaca College; M.S.Ed., Temple University; CELTA Teaching Certificate, Cambridge University</td>
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<tr>
<td>McCall, Maria</td>
<td>Associate Director of Accounting Services</td>
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<td>McCall, Sally</td>
<td>Director of Budget</td>
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<td>McCargo, Donavan</td>
<td>Associate Dean for Student Life</td>
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<td>B.S. Rowan University, M.Ed., Iowa State University, Ed.D., Rowan University</td>
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<td>McCloy, Mary E.</td>
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<td>McCombs, Tyrone</td>
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<td>B.A., M.A., Rutgers University; Ph.D. University of Pennsylvania</td>
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<td>McElwee, Rory O.</td>
<td>Associate Vice President for Student Retention, Division of Strategic Enrollment Management</td>
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<tr>
<td></td>
<td>B.A., Drew University; Ph.D., Cornell University</td>
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<tr>
<td>McFarland, Daniel J.</td>
<td>Associate Dean, Rohrer College of Business</td>
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<tr>
<td></td>
<td>Ph.D. - Drexel University, Philadelphia, PA; M.B.A. - Drexel University, Philadelphia, PA; B.S/B.S. - Drexel University, Philadelphia, PA;</td>
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<tr>
<td>McGeethan, John</td>
<td>Associate Dean for Student Affairs and Admissions, Cooper Medical School</td>
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<td></td>
<td>MD</td>
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<tr>
<td>McPherson, Penny</td>
<td>Assistant Vice President for Student Enrichment, Division of Student Life</td>
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<tr>
<td>Miller, Barbara J</td>
<td>Director of Library Services, Cooper Medical School</td>
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<tr>
<td>Milligan, Carolyn</td>
<td>Director of Payroll</td>
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<tr>
<td></td>
<td>B.S., Rutgers University</td>
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<tr>
<td>Mitchell-Williams, Jocelyn Ann</td>
<td>Associate Dean for Multicultural and Community Affairs, Cooper Medical School</td>
</tr>
<tr>
<td></td>
<td>(B.S.), Rutgers University; (Ph.D.) Rutgers University; (M.D.), Robert Wood Johnson Medical School, University of Medicine and Dentistry of New Jersey (now Rutgers University)</td>
</tr>
<tr>
<td>Monahan, Joseph D.</td>
<td>Assistant Vice President for Facilities and Operations</td>
</tr>
<tr>
<td></td>
<td>Bachelor of Engineering – Widener; Certificate for Business Essentials- University of Penn, Wharton School.</td>
</tr>
<tr>
<td>Moore, Donald E.</td>
<td>Senior Vice President for Facilities and Operations</td>
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<td>Mordosky, Anthony</td>
<td>Associate Vice President for Information Resources/Chief Technology Officer</td>
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<td></td>
<td>B.S., Kutztown State University; B.S., Millersville State College; M.B.A., Temple University</td>
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<td>Name</td>
<td>Title, Institution</td>
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<td>Morrow, Eileen</td>
<td>Director of Campus Services</td>
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<tr>
<td>B.A., Wilkes College, M.A., Bucknell University; CSP</td>
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<tr>
<td>Muir, Scott</td>
<td>Associate Provost for Library Information Services</td>
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<td>B.S., Tennessee Technological University, Tennessee, M.A of Librarianship, Emory Univ. Georgia; MS Eastern Michigan University, MI</td>
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<td>Mulligan, Joseph</td>
<td>Assistant Vice President for Civic Involvement, Division of Student Life</td>
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<td>B.A., M.A., West Chester University</td>
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<td>Newell, James</td>
<td>Provost/Senior Vice President for Academic Affairs</td>
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<tr>
<td>B.S., Carnegie-Mellon University, M.S., Penn State University; Ph.D., Clemson University</td>
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<td>Nicholson, Darren</td>
<td>Provost Fellow</td>
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<td>B.A., Ph.D., Washington State University</td>
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<td>Nurkowski, Lucia</td>
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<td>B.A., M.Ed., Boston University, Ed.D., Widener University</td>
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<td>O'Loughlin, Charles Michael</td>
<td>Public Relations and Events Coordinator, College of Science and Mathematics</td>
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<td>O'Neill, Cheryl</td>
<td>B.S., Grand Canyon University</td>
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<tr>
<td>Oxholm, III, Carl &quot;Tobey&quot;</td>
<td>Executive Vice President Amherst College, B.A summa cum laude, 1975; Harvard University, J.D summa laude, 1979; Harvard University, Kennedy School of Government, Master of Public Policy (MPP) 1979</td>
</tr>
<tr>
<td>Pastin, John R.</td>
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<tr>
<td>B.S. University of the State of New York, M.M. Northwestern University, D.M.A. University of Maryland</td>
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<tr>
<td>Peterson, Julie</td>
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<tr>
<td>B.A., M.A., Trenton State College (College of New Jersey)</td>
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<td>Petrella, Brittany L</td>
<td>Development Director</td>
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<td>Piddington, Sarah E.</td>
<td>Director of Sponsored Programs and Technology Transfer</td>
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<td>B.S./M.B.A. - Rowan University</td>
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<td>Pinder, Anne</td>
<td>Assistant Director Enterprise Information Systems</td>
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<td>B.S., Rowan University, M.A., Stevens Institute of Technology</td>
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<tr>
<td>Pinocci, Tina</td>
<td>Associate Vice President for Campus Recreation and Student Activities, Division of Student Life</td>
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<tr>
<td>B.S., M.Ed., Frostburg State College</td>
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<td>Previti, Diane</td>
<td>Associate Registrar</td>
</tr>
<tr>
<td>Puliti, Michele Ann</td>
<td>Managing Administrative Assistant, Dean's Office, Cooper Medical School</td>
</tr>
<tr>
<td>Reboli, Annette</td>
<td>Vice Dean, Cooper Medical School</td>
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<tr>
<td>MD from Georgetown University school of medicine</td>
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<td>Regan-Butts, Elizabeth</td>
<td>Assistant Vice President for Marketing and Recruitment, Division of Global Learning and Partnerships</td>
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<tr>
<td>B.S., Rowan University, M.B.A., Temple University</td>
<td></td>
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<tr>
<td>Reigel, Daniel P</td>
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</tr>
<tr>
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<td>Ricchezza, Lorraine</td>
<td>Director of External Affairs and Campus Development</td>
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<tr>
<td>Richmond, Courtney</td>
<td>Assistant Dean for Undergraduate and Graduate Students, College of Science and Mathematics</td>
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<td>Ring, Jackie</td>
<td>Assistant Vice President for Institutional Effectiveness, Research and Planning</td>
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<tr>
<td>Rollins, Sandra M.</td>
<td>Interim Director of Financial Aid</td>
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<td>Rowan, James, J. Jr.</td>
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<td>Rubenstein, David</td>
<td>Associate Vice President for Student Wellness, Division of Student Life</td>
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<td>B.A., Drake University; M.S.W., Loyola University of Chicago; Psy.D., Illinois School of Professional Psychology in Chicago</td>
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<td>Saadeddine, Rihab</td>
<td>Assistant Dean for Assessment and Technology, College of Education</td>
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<td>Sanders, Gloria M.</td>
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<td>Scott, Eileen</td>
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<td>Showers, Joanne</td>
<td>Managing Administrative Assistant, Office of the Vice President for Employee and Labor Relations</td>
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<td>Street, Christopher Roger</td>
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<td>Sullivan-Williams, Lizzie</td>
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<td>Sunkett, Jeremy Ronald</td>
<td>President, Business, Real Estate and Project Controls, Division of Facilities, Planning and Operations</td>
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<td>Swierzewski, Rachel L.</td>
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<td>Tallarida, Ronald J.</td>
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<tr>
<td>Taylor, Tyrone</td>
<td>Director of Campus Security and Student Programs</td>
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<td>A.A., Keystone College; B.S.A.G., West Virginia University; M.L.A., University of Virginia</td>
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<tr>
<td>Tiao, Ann</td>
<td>Assistant Dean for Research and Graduate Education</td>
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<td>Tinnin, Drew</td>
<td>Director of Orientation and Student Leadership Programs</td>
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<tr>
<td>Tolocka, Michael</td>
<td>Director, Environmental Sustainability Institute</td>
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<tr>
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<td>B.S. Fairleigh Dickinson University; Ph.D., The George Washington University</td>
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<td>Tootchen, Richard</td>
<td>Marketing/Business Development Manager, Institutional Effectiveness/Research and Planning</td>
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<td>MS - University of Vermont; BA-Franklin &amp; Marshall College</td>
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<td>Toporski, Neil</td>
<td>Director of Instructional Technology Services</td>
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<tr>
<td></td>
<td>B.S., University of Wisconsin-Madison; M.S., Clarion University; Ed.D., Lehigh University</td>
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<tr>
<td>Van Brunt, Margaret</td>
<td>Assistant Dean, Rohrer College of Business</td>
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<td>Vanston, Patricia</td>
<td>Associate Dean for Program and Business Development, Cooper Medical School</td>
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<td>Varela, Tomas</td>
<td>Advisor, Office of Health Professions</td>
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<td>Veacock, Peggy</td>
<td>Director of Advancement/Administration</td>
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<tr>
<td>Velez-Yelin, Johanna</td>
<td>Assistant Vice President for Equity and Diversity</td>
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<tr>
<td>Vitto, Cindy L.</td>
<td>Dean, College of Humanities and Social Sciences</td>
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<tr>
<td>Weil, Valerie P.</td>
<td>Associate Dean for Finance, Administration, and Operations, Cooper Medical School</td>
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<td>Weinstein, Steven D.</td>
<td>General Counsel/Senior Vice President for Governmental Relations</td>
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<tr>
<td>Wheatcroft, Melissa</td>
<td>Associate General Counsel</td>
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<td>Williams Shealey, M.</td>
<td>Dean, College of Education</td>
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<td>Wills, Christine</td>
<td>Interim Associate Director of Financial Aid</td>
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<td>Woodruff, John</td>
<td>Director of Academic Success Center</td>
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<td>Director for Student Health Services</td>
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<td>Yurak, Tricia J.</td>
<td>Associate Dean, College of Science and Mathematics</td>
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<tr>
<td>Zazzali, Robert</td>
<td>Vice President/Chief of Staff</td>
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<tr>
<td>diNovi, Kristen</td>
<td>Assistant Dean, College of Humanities and Social Sciences</td>
</tr>
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</table>
General Information

Campus Buildings

Barnes & Nobles at Rowan University
Located on Rowan Boulevard, this now serves as the University Bookstore.

Bole Annex
Opened in the spring of 1970, Bole Annex houses the Department of Public Safety and the University Research Office.

Bole Hall
Robert D. Bole Hall is the administrative center of the University. It contains the offices of the President, Provost and University finances. It is named after former Dean Robert Bole.

Bozorth Hall
Named for a former registrar, Loriot Bozorth, the building was originally opened in 1954 as the campus demonstration elementary school. Today, Bozorth houses the College of Communication offices, Rowan Radio, Rowan TV, a distance learning classroom, film-editing facilities, a computer-equipped journalism newsroom, an advertising/PR client suite, a layout room and a computer-equipped writing laboratory.

Bunce Hall
The first building on campus, Edgar J. Bunce Hall was opened in 1923 and is named for a former president of the University. It houses the College of Business, as well as the departments of English, Foreign Languages and Literatures, Philosophy and Religion, and Theatre and Dance. This building also features classroom space and Tohill Auditorium.

Camden First National Bank (Camden)
In 2009, the University purchased the former bank and its annex in an effort to provide the space needed for Rowan's Camden operations. Rowan has had a presence in Camden since 1969. Today, the Camden Campus building is located at the corner of Cooper Street and Broadway. The bank is across the street.

Campbell Library
Opened in 1995, the Keith and Shirley Campbell Library features 118,000-square feet of research, study, archive and office space. It provides connectivity to the campus network, enabling access to many databases and online resources. The Library was named the Keith and Shirley Campbell Library in recognition of the Campbells' generous gift of an endowment for the facility in 2000.

Carriage House
Built in 1849 to service the Hollybush Mansion, this building now houses University Publications.

Cassady Maintenance Building
Opened in 1971, the Otto P. Cassady Maintenance Building, named for a former engineer in charge of maintenance, is the main office complex for maintenance operations.

Chamberlain Student Center
The Student Center opened in 1974 and serves as a campus focal point where students, faculty, staff and community members congregate for a wide range of events, services and functions. It houses offices for student organizations and publications as well as several administrative offices. The following facilities are located in the three-level center: the information desk, I.D. room, mailroom, an ATM machine, Eynon Ballroom, meeting and conference rooms and eating areas, including the dining hall, a food court, snack bar, outdoor dining terrace, Prof's Place and the Owl's Nest Restaurant.

Edgewood Park Apartments
This four-building complex houses 24 apartments. Four students live in each apartment, which contains two bedrooms, a living room, dining room, kitchen and bathroom. The apartments are carpeted, furnished and air-conditioned. All apartment buildings are co-ed and managed as a private, garden apartment complex. Limited parking is available for residents.

Enterprise Center
Located on Rowan Boulevard, the Enterprise Center opened in 2013 and is home to the College of Graduate and Continuing Education.


**Esby Gym**  
The Roland A. Esbjornsen Hall houses the gymnasium, swimming pool, classrooms and the Health and Exercise Science faculty offices. The building is named after a former chairman of the Health and Exercise Science Department.

**Evergreen Hall**  
Evergreen houses 204 students. The building is three stories tall and is separated into two wings. Rooms are arranged in suites. Each suite contains two double bedrooms and a bath.

**Hawthorn Hall**  
Formerly a student residence facility, Hawthorn Hall is one of the homes of the College of Communication.

**Hering Central Heating and Cooling Plant**  
The J. Leonard Hering Heating Plant, named for a former superintendent of maintenance, houses the centralized heating and cogeneration equipment.

**Herman D. James Hall**  
Education Hall, opened January 2006, is home to the College of Education. The three-story, 135,000-sq. foot building features academic distance-learning facilities, an early childhood development center and an assortment of labs and outreach centers as well as classroom space.

**Hollybush Mansion**  
Built in 1849, the building was the site of the historic summit meeting between President Lyndon B. Johnson and Soviet Premier Alexei B. Kosygin in 1967. The building now serves as a museum and meeting center.

**Laurel and Oak Halls**  
Laurel and Oak are the University's first residence halls. Today, each building houses 45 students.

**Linden Hall**  
Formerly a student residence facility, Linden Hall houses the Human Resources Office, the Student Health Center, Facilities Management and the offices of the vice president for Administration and Finance.

**Memorial Hall**  
Opened in 1956, the building serves as the center for information (computer) resources, housing the campus help desk, Web Services and the Duplicating Center. A dance studio is also in the building.

**Mimosa Hall**  
Mimosa accommodates 305 students. Rooms are arranged by suites, and each suite contains two to three double bedrooms and a bath.

**Mullica Hall**  
Mullica accommodates 103 students. Rooms are arranged by suites, and each suite contains two double bedrooms and a bath.

**Robinson Hall**  
Named after Thomas E. Robinson, a former Rowan University president, this is one of the largest classroom buildings on campus. It is home to several departments of the College of Liberal Arts & Sciences. The core of the building consists of classrooms and seminar rooms.

**Rowan Boulevard Apartments**  
Rowan Boulevard Apartments, is made up of two, four-story buildings that house 884 students in 28 one-bedroom efficiency units and 214 four-bedroom suites. The suites include two bathrooms, a kitchen, breakfast nook and living room area. The complex also contains exercise and weight rooms, meeting rooms, laundry facilities and a Public Safety satellite office.

**Rowan Hall**  
Opened in January 1998, Henry M. Rowan Hall is the home of the College of Engineering. The 95,000-sq. foot building features three floors of offices, classrooms, labs and the 115-seat Betty Rowan Auditorium.

**Sangree Greenhouse**  
Built in 1923, the John Sangree Greenhouse is one of the oldest structures on campus. A preservation and renovation project was completed on this facility in 1998.
**Savitz Hall**
Originally the University library, this building was completely renovated to house all of the student service functions, including the offices of the vice president for Student Affairs, Dean of Students, Career and Academic Planning, Developmental Education, Tutoring, Basic Skills/Testing, Admissions, Counseling, EOF/MAP, Registrar, Financial Aid, Revenue and Collections, Residential Learning & University Housing, Multicultural/International Affairs, Specialized Services, the Center for Service Learning and Volunteerism, the Honors Program and Women's Studies. The building is named after Jerohn Savitz, the University’s first president.

**Science Hall**
Dedicated in 2003, the facility features the 102-seat Edelman Planetarium, a rooftop observatory with 16-inch telescope, a rooftop greenhouse, 27 teaching laboratories and 22 research labs. Its 150,000 square feet of space is spread over three floors. Housed here are offices for the departments of Biology, Chemistry and Biochemistry, and Physics and Astronomy.

**Shpeen Hall**
Alvin Shpeen Hall is located one block off of the east corner of campus, on Academy Street. The University purchased the former elementary school building from Glassboro and refurbished it to house offices. Today, Shpeen Hall is home to the R. Grace Bagg Alumni Center and the Rowan Foundation. Alvin Shpeen was a mayor of Glassboro. It is home to University Advancement, including Alumni Relations.

**South Jersey Technology Park at Rowan University**
The Samuel H. Jones Innovation Center is a 45,000 square-foot facility located at the South Jersey Technology Park on Rowan’s West campus that provides engineering laboratory, web-laboratory and technology company incubation all within a single facility. In partnership with Rowan’s College of Business, the Technology Park offers collaboration and consulting services, product feasibility, development and commercialization services, training seminars and continuing education courses in entrepreneurship for new and established businesses.

**Student Recreation Center**
Opened in 1993, the Student Recreation Center is a comprehensive recreation sports facility. The three-story, 76,000-square-foot building houses an eight-lane swimming pool, a three-lane indoor running track, a three-court multi-sport gym, five racquetball courts, an aerobics room, fitness and free-weight rooms, a conference room and complete locker/shower room facilities. Administrative offices coordinate various programs, including informal sports, intramural sports and fitness activities for students, faculty and staff.

**Team House**
Opened in 1971, the Team House contains locker rooms; training facilities; and intercollegiate athletics, coaching and staff offices. It was renovated and expanded in 2013.

**The North Halls: Chestnut, Magnolia and Willow Halls**
These buildings house 750 students. Small groups of students share a fully carpeted suite with their own entrance, living room and bath. In addition, the complex includes a laundry room.

**Townhouses**
Opened in 2004, the on-campus, 113-unit townhouse complex along Route 322 features four- and six-bedroom configurations convenient to classes and other activities. The complex was built adjacent to a new parking garage and 5,000-square-foot community center with laundry facilities, a game room and meeting space.

**Triad Apartments**
Triad features 81 apartments which are carpeted, air-cooled and furnished. A variety of apartment types are available to accommodate 288 students in a co-ed living environment.

**Westby Hall**
Completed in 1967, the Cleve O. Westby Hall Arts Building, named in honor of the former director of county and state college construction, contains laboratories, classrooms, a lecture hall for 110 students, faculty offices, a large exhibit gallery, the graphics communication technology center and a darkroom.

**Whitney Center**
Located on Rowan Boulevard, the Whitney Center (opened 2012) features stores on the 1st floor and student housing on top. It is also home to the Thomas Bantivoglia Honors Program and student apartments.

**Wilson Hall**
Harold Wilson Hall, named after a former faculty member, opened in 1972 and is primarily home to the performing arts. The building contains two large rehearsal rooms, Boyd Recital Hall, practice rooms, classrooms, two student lounges, a music library, faculty offices, the concert box office and W. Clarke Pfleeger Hall—a 1,000 seat auditorium. The dean of the College of Fine & Performing Arts, Music Department, and the Law and Justice Studies Department also are located in the building.
Winans Hall

Seymour Winans Hall is named for a former faculty member and was the former home to the University bookstore.
**Administrative Offices Telephone Numbers**

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<th>Office</th>
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</table>
**Directions to Campuses**

*For GPS, use the street address for each of our campuses as indicated below*

**Main Campus - Glassboro**

201 Mullica Hill Road, Glassboro, NJ 08028

**Cooper Medical School of Rowan University (CMSRU)**

401 South Broadway, Camden, NJ 08103

**Rowan University @ Camden - Bank Building**

129 North Broadway, Camden, NJ 08102

**Rowan University School of Osteopathic Medicine (SOM)**

One Medical Center Drive, Stratford, NJ 08084

**West Campus - Tech Park**

107 Gilbreth Parkway, Mullica Hill, NJ 08062
The Emeriti

Adams, Ethel M. (1968-1984)  Professor
  Psychology
  B.A., Eastern Michigan University; M.A., University of Michigan; Ed.D., University of Pennsylvania

Addison, Carolyn (1967-1991)  Professor
  Health and Physical Education
  B.S., James Madison University; M.A. New York University; Ed.D., Temple University

Alvino, Esther (1966-1987)  Assistant Professor
  Elementary Education
  B.A., M.A., Glassboro State College

Ambacher, Jr., Richard J. (1967-2000)  Professor
  Communication Studies
  B.A., Glassboro State College; M.F.A., Tate University

Amme, Linda (1968-1990)  Assistant Professor
  Special Education Services and Instruction
  B.A., M.A., Glassboro State College

Andersen, Donald (1970-1998)  Assistant Professor
  Special Education Services and Instruction
  B.A., M.Ed., Rutgers University

Applebaum, David 1973-2011  Professor
  Department of History
  B.A., Brooklyn College; M.A., Ph.D., University of Wisconsin-Madison

Avril, Edwin (1959-1982)  Professor
  Music
  B.A., San Francisco State College; M.A., Ed.D., Teachers College, Columbia University

Bartelt, Pearl W. (1972-1999)  Professor
  Sociology and Dean
  B.S., M.A., Ph.D., Ohio State University

Behm, Edward 1971-2002  Assistant Professor
  Department of Geography and Environment
  B.A., M.A., Bowling Green State University

Bender, Aaron (1964-1991)  Professor
  Department of History
  B.A., Brooklyn College; M.A., Ph.D., New York University

Benevento, Jacqueline D. (1993-2010)  Assistant Professor
  Department of Teacher Education
  B.A., Montclair State; M.A., Middlebury College; Ed.D., Temple University

Berhe Habte-Georgis 1988-2013  Professor
  Department of Marketing and Business Information Systems
  B.B.A., Haile Selassie University; M.S., Loyola University; D.B.A., Louisiana Tech University

Beverly, Leah (1958-1984)  Professor
  Health and Physical Education
  B.S., Southwestern Louisiana College; M.A., N.Y.U.; Ed.D., University of So. Mississippi

Bianchi, John (1967-1990)  Coordinator of Research
  Education
  B.S., Villanova Univ.; M.Ed., Rutgers Univ.; Ed.D., Temple University

Bisazza, Gaetano R. (1966-2000)  Assistant Professor
  Biological Sciences
  B.S., LaSalle College; M.S. Villanova University
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<th>Years</th>
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<td>Blanken, Maurice</td>
<td>1957-1982</td>
<td>Associate Professor</td>
<td>Economics and Political Science</td>
<td>B.A., Drew University; M.A., Columbia University</td>
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<td>Blough, Robert</td>
<td>1963-1995</td>
<td>Professor</td>
<td>Elementary Education</td>
<td>B.S., Juniata College; M.Ed., Temple University; Ed.D., University of Pennsylvania</td>
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<td>Bolay, Brenda</td>
<td>1968-1997</td>
<td>Associate Professor</td>
<td>Health and Exercise Science</td>
<td>B.A., University of Michigan; M.Ed., State University of New York, Buffalo; Ph.D., University of Maryland</td>
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<td>Borowec, Alexander</td>
<td>1956-1988</td>
<td>Professor</td>
<td>Physical Sciences</td>
<td>B.S., Trenton State College; M.S., University of Pennsylvania; Ed.D., Temple University</td>
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<td>Brent, George</td>
<td>1971-2003</td>
<td>Professor</td>
<td>Elementary/Early Childhood Education</td>
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<td>Breslin, Frederick</td>
<td>1960-1991</td>
<td>Professor</td>
<td>Psychology</td>
<td>B.A., Queens College; M.A., Ph.D., New York University</td>
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<td>Brinker, Beula</td>
<td>1960-1984</td>
<td>Assistant Professor</td>
<td>Elementary Education</td>
<td>B.S., Glassboro State College; M.A., New York University</td>
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<td>Britton, Pearl E.</td>
<td>1968-1977</td>
<td>Professor</td>
<td>Health and Physical Education</td>
<td>B.S., Cortland State College; M.Ed., Ed.D., University of Buffalo</td>
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<td>Brooks, Ellain</td>
<td>1965-1983</td>
<td>Assistant Professor</td>
<td>Math and Computer Science</td>
<td>B.S., North Carolina State; M.A., Columbia University</td>
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<td>Brown, Estelle</td>
<td>1962-1992</td>
<td>Professor</td>
<td>Reading and Speech Correction</td>
<td>B.S., M.A., Glassboro State College; Ed.D., Temple University</td>
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<td>Bruce E. Caswell</td>
<td>1989</td>
<td>Associate Professor</td>
<td>Department of Political Science and Economics</td>
<td>B.A., University of Chicago; M.C.P., University of Pennsylvania; Ph.D., Rutgers University</td>
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<td>Butcher, Ronald</td>
<td>1991-2009</td>
<td>Executive Director</td>
<td>Education Institute</td>
<td>B.S., Western Michigan University; M.A., Eastern Michigan University; Ph.D., University of Michigan</td>
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<td>Buzash, Gabriel</td>
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<td>Professor</td>
<td>Elementary Education</td>
<td>B.S., Slippery Rock State College; M.S., Westminster College; Ed.D. Penn State University</td>
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<td>Professor</td>
<td>Psychology</td>
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<td>Calliari, Carl</td>
<td>1968-2004</td>
<td>Professor</td>
<td>Education</td>
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<td>1988-2008</td>
<td>Associate Professor</td>
<td>Special Education Services/Instruction</td>
<td>B.A., M.A., Glassboro State College; Ed.D., Nova Southeastern University</td>
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<td>1996-2002</td>
<td>Associate Professor</td>
<td>B.A., M.A., Montclair State College; Ed.D., Columbia University</td>
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<td>Cell, Howard R.</td>
<td>1967-2000</td>
<td>Professor</td>
<td>Philosophy and Religion</td>
<td>B.S., University of Wisconsin; M.A., San Jose University; Ph.D., Temple University</td>
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<td>Chaskes, Jay</td>
<td>1969</td>
<td>Professor</td>
<td>Department of Sociology and Anthropology</td>
<td>B.A., University of Toledo; M.A., Ph.D., Temple University</td>
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<td>Capasso, Ronald</td>
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<td>Associate Professor</td>
<td>B.A., M.A., Montclair State College; Ed.D., Columbia University</td>
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<td>Cinaglia, Marianne</td>
<td>1994-2007</td>
<td>Assistant Professor</td>
<td>Secondary Education</td>
<td>B.S., Drexel University; M.A., Ph.D., University of Delaware</td>
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<td>Clapp, Robert A.</td>
<td>1969-2000</td>
<td>Assistant Professor</td>
<td>Theatre and Dance</td>
<td>B.A., Pennsylvania State University; M.A., Syracuse University</td>
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<td>Clark, Carol</td>
<td>1977-2010</td>
<td>Librarian</td>
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<td>B.A., Regis College; M.S.L.S., Syracuse University; M.Ed., University of Lowell</td>
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<td>Cohen, Stanley</td>
<td>1961-1984</td>
<td>Professor</td>
<td>Educational Administration</td>
<td>B.S., Rutgers University; M.Ed., Ed.D., Temple University</td>
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<td>Collins, John</td>
<td>1963-1994</td>
<td>Professor</td>
<td>Communications</td>
<td>B.S., West Chester State College; M.A., Penn State University; Ed.D., Temple University</td>
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<td>Combs, Ethel</td>
<td>1967-1999</td>
<td>Associate Professor</td>
<td>Reading and Speech Correction</td>
<td>B.A., Douglass College; M.A., Glassboro State College; Ph.D., Temple University</td>
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<td>Conrad, George</td>
<td>1958-1979</td>
<td>Professor</td>
<td>Art</td>
<td>B.S., New York University; M.A., Ed.D., Columbia University</td>
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<td>Covi, Adelyne</td>
<td>1964-1984</td>
<td>Assistant Professor</td>
<td>Elementary Education</td>
<td>B.S., Washington University; M.A., Glassboro State College</td>
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<td>Craver, Rhys</td>
<td>1963-1994</td>
<td>Associate Professor</td>
<td>Chemistry and Physics</td>
<td>B.S., Millersville State College; M.S., University of Delaware; Ph.D., Walden University</td>
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<td>Creamer, Marvin C.</td>
<td>1948-1977</td>
<td>Professor</td>
<td>Department of Geography and Environment</td>
<td>B.S., L.H.D., Glassboro State College; M.S., University of Pennsylvania; M.S., University of Wisconsin</td>
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<td>Darrah, Gladys L.</td>
<td>1967-1979</td>
<td>Assistant Professor</td>
<td>Health and Physical Education</td>
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<td>Dear, Edward C.</td>
<td>Associate Professor</td>
<td>Health and Exercise Science</td>
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<td>Delaney, Lawrence</td>
<td>Professor</td>
<td>Physical Sciences</td>
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<td>Detrick, Fred</td>
<td>Associate Professor</td>
<td>Foundations of Education</td>
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<td>DiObilda, Nicholas</td>
<td>Professor</td>
<td>Reading</td>
<td>B.S., West Chester University; M.Ed., Univ. of Delaware; Ph.D., Ohio State University</td>
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<td>Dinsmore, Lee</td>
<td>Professor</td>
<td>Chemistry and Physics</td>
<td>B.S., Texas A &amp; M University; M.A., University of Texas; Ph.D., Temple University</td>
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<td>Donaghy, Robert</td>
<td>Assistant Professor and Coordinator</td>
<td>Academic Advising</td>
<td>B.S., University of Minnesota; Ph.D., University of Texas</td>
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<td>Donahue, Charles T.</td>
<td>Professor</td>
<td>Department of English</td>
<td>B.A., Texas A &amp; M University; M.A., University of Texas; Ph.D., Temple University</td>
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<td>Donald Stoll</td>
<td>Associate Professor</td>
<td>Department of Writing Arts</td>
<td>P.A. Valpariso Univ.; M.F.A., U of Texas at Austin, Ph.D. Indiana University.</td>
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<td>Doskow, Minna</td>
<td>Professor</td>
<td>English and Dean</td>
<td>B.S., M.S., City College of N.Y.; M.A., University of Connecticut; Ph.D., University of Maryland</td>
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<td>Douglas, Herbert</td>
<td>Professor</td>
<td>Psychology</td>
<td>B.S., Duquesne; M.S., Glassboro State College; Ph.D., University of Toledo</td>
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<td>Duff, Elizabeth R.</td>
<td>Professor</td>
<td>Psychology</td>
<td>B.S., Kent State Univ.; M.A., New York Univ.; Ed.D., University of Maryland</td>
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<td>Dugan, Ruth</td>
<td>Professor</td>
<td>Psychology</td>
<td>B.A., Washington Square College; M.A., Ph.D., New York University</td>
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<td>Elliott, Gene V.</td>
<td>Professor</td>
<td>Psychology</td>
<td>B.S., M.A., Michigan State University; Ph.D., University of Maryland</td>
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<td>Emerson, Robert</td>
<td>Assistant Professor and Assistant Director</td>
<td>Professional Lab Exper.</td>
<td>B.R.E., United Wesleyan College; M.A., Glassboro State College</td>
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<td>Enghretson, Herschel</td>
<td>Assistant Professor</td>
<td>Communications</td>
<td>B.A., Taylor University; M.A., University of Pennsylvania</td>
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<td>Enslin, William L.</td>
<td>Associate Professor</td>
<td>Management and MIS</td>
<td>B.E., University of Pennsylvania; Ed.D., Rutgers University</td>
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<td>Fanslau, Martha C.</td>
<td>Librarian and Instructor</td>
<td>Library</td>
<td>B.A., University of Pennsylvania; M.A., Glassboro State College</td>
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The Emeriti

Foster, Bruce (1970-2005)  Professor
Reading
B.A., Trenton State College; M.S.Ed., Bucknell Univ.; Ed.D., Florida State University

Fox, John (1964-1990)  Assistant Professor
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B.A.P.E., M.S.P.E., West Virginia University

Frankl, Razelle (1983-2000)  Professor
Management and MIS
B.A., Temple University; M.B.A., Drexel University; M.A., Ph.D., Bryn Mawr College

Friebis, George (1969-1993)  Director
Educational Media
B.S., M.Ed., Temple University; M.A., Glassboro State College; Ed.D., Nova University

Frisone, John (1973-2002)  Associate Professor
Psychology
B.A., Queens College; Ph.D., City University of New York

Fulginiti, Anthony (1976-2009)  Professor
Public Relations and Advertising
B.A., Laurel Hill College; M.A., Villanova University; M.A., Glassboro State College; APR Fellow PRSA

Gallinelli, John (1969-2009)  Professor
Art
B.Ed., Keene State College; Ph.D., University of Maryland

Gardiner, Dickinson (1967-1991)  Professor
Secondary Education and Educational Foundations
B.A., Western Maryland College; M.Ed., Ed.D., Temple University

Interlibrary Loan and Science Librarian
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Garrahan, John (1965-1982)  Associate Professor
Special Education
B.A., City College of New York; M.S., Ed.D., University of Pennsylvania

Gates, Rodney E. (1968-2000)  Assistant Professor
Art
B.S., Univ. of Maryland, M.A., Glassboro State College

Gaynor, William (1965-1987)  Assistant Professor and Librarian
Library
B.A., Georgetown University; M.A., Fairfield University; M.S., Villanova University

Gephartd, Donald L. (1990-2009)  Professor
Music
B.M.E., Drake University; B.S., M.S., The Juilliard School; Ed.D., Washington University

Gillespie, John (1972-1992)  Associate Professor
Communications
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Glassberg, Rose (1964-1991)  Professor
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B.S., West Chester State College; M.A., Middlebury College; Ph.D., Temple University

Goldberg, Leon (1968-1988)  Associate Professor
Physical Science
B.S., City College of New York; M.S., New York University

Goodfellow, Frank (1965-1999)  Associate Professor
Secondary Education
B.A., College of Wooster; M.S.L.S., Drexel Institute of Technology
The Emeriti

Philosophy and Religion  
B.A., M.Th., Drew University; M.A., Ph.D., Temple University

Graneto, Phillip (1970-2011)  
Theater and Dance  
B.A Catholic University, MFA Carnegie Mellon

Green, Charles H. (1962-1993)  
Life Sciences  
B.S., Penn State University; M.S., University of Delaware; Ph.D., Purdue University

Radio, Television, and Film  
B.A., Xavier University; M.A., Purdue University; Ph.D., Ohio State University

Technology  
B.S., M.Ed., Ph.D., Texas A & M University

Composition and Rhetoric  
B.A., Chestnut Hill College; M.A., Rutgers

Gurst, Lawrence (1966-1993)  
Elementary Education  
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Haba, James (1972-2003)  
Department of English  
B.A., Reed College; Ph.D., Cornell University

Hamlet, Carolyn (1984-2012)  
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B.S., University of Tennessee; M.Ed., Memphis State University; Ph.D., Temple University

Haynes, Robert (1960-1991)  
Art  

Healy, Bartholomew (1985-2013)  
Theatre and Dance  
B.A. College of the Holy Cross; M.F.A New York University

Department of History  
B.A., University of Maryland; M.S., Cathobic University; Ph.D., Georgetown University

Hitchner, Benjamin G. (1964-1998)  
Economics and Political Science  
B.S., Temple University; M.S., University of Pennsylvania

Technology  
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Husain, Syed (1960-1994)  
Biological Sciences  
I.Sc., City Science College, Hyderabad; B.Sc., College of Agriculture, Osmania University,Hyderabad, India; M.S., Oklahoma State University; Ph.D., Cornell University

Jaeger, Peter (1966-1981)  
Communications  
B.A., Mexico City College; M.Ed., University of Houston

Jam, Habib O. E. (1979-2013)  
Economics and Political Science  
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<td>Janice Rowan 1976-2011</td>
<td>Professor</td>
<td>Department of Writing Arts</td>
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<td>Professor</td>
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<td>Associate Professor</td>
<td>Political Science</td>
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<td>Associate Professor</td>
<td>Educational Leadership</td>
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<td>Department of Foreign Languages and Literatures</td>
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<td>Education</td>
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<td>Head Reference Librarian</td>
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<td>Psychology</td>
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<td>Professor</td>
<td>Theatre and Dance</td>
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<td>Health and Exercise Science</td>
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<td>Associate Professor</td>
<td>Department of History</td>
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The Emeriti

Leder, George (1972-2000)  
Assistant Professor  
B.S., Brooklyn College; Ph.D., Rutgers University

Lee, Elaine (1967-1994)  
Associate Professor  
Elementary/Early Childhood Education  
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Leshay, Steven V. (1978-1999)  
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Marketing  
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Libro, Antoinette (1968-2002)  
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Communication  
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Lint, Jerry N. (1964-1998)  
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Department of Geography and Environment  
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Lisa, Anthony (1978-2000)  
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Management and MIS  
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Martin, Doris (1976-1987)  
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Masat, Francis E. (1972-1998)  
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Mathematics  
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McConnell, Helen (1965-1999)  
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B.S., State University College, Oneonta, NY; M.A., Columbia University; Ph.D., Michigan State University

McCran, Virginia E. (1968-1985)  
Assistant Professor  
Home Economics  
B.A., M.Ed., Rutgers University

McHenry, Sandra L. 1993-2000  
Associate Professor  
R.N., Helene Fuld School of Nursing; B.A., Rowan College of NJ; M.S., University of Delaware; D.N.Sc., Widener University

Professor  
Department of English  
B.A., Canisius College; M.A., Ph.D., Harvard University
The Emeriti

McLean, Desmond (1966-2002)  
    Associate Professor  
    Art  
    B.A., Newark State College; M.A., Hunter College

McMeniman, Linda 1986-2000  
    Associate Professor  
    B.A., New York University; M.A., Ph.D., University of Berkeley

    Professor  
    Biological Sciences  
    B.S., M.S., Fairleigh Dickinson University; Ph.D., St. Bonaventure University

Mercier, J. Denis (1967-2002)  
    Professor  
    Communication  
    B.A., Marian College; M.A., Niagara University; Ph.D., University of Pennsylvania

Meyers, Dorothy (1967-1985)  
    Assistant Professor and Librarian  
    Library  
    B.A., State University of Iowa; M.L.S., Rutgers University

Mical, Agnes (1968-1996)  
    Assistant Professor  
    Health and Exercise Science  
    B.S., M.S., West Chester University

Michaelson, James (1967-1991)  
    Assistant Professor  
    Secondary Education and Education Foundations  
    B.S., M.A., Temple University

Micklus, Samuel C. (1968-1991)  
    Professor  
    Technology  
    B.S., Philadelphia College of Art; M.A., Trenton State College; Ed.D., New York University

Miller, Allen 1976-2000  
    Chief Engineer, WGLS, College of Communication  
    College of Communication  
    B.S., M.S., SUNY-Oswego

Mitchell, Robert D. (1965-1997)  
    Associate Professor  
    Mathematics  
    B.S., M.A., University of Texas

Mohammad, Rashiduzzaman (1973-2013)  
    Associate Professor  
    Economics and Political Science  
    M.A. and B.A. (Hons) University of Dhaka, (Bangladesh); Post-doctoral (senior) fellowship, Columbia University, New York; Ph.D., University of Durham, England

Monahan, Thomas (1984-2009)  
    Professor  
    Educational Leadership  
    B.A., LeMoyne College; Ed.M., Ed.D., Rutgers University

Monroe, Gerald (1968-1986)  
    Associate Professor  
    Art  
    B.S., M.A., Ed.D., New York University

Moore, Elizabeth (1972-2002)  
    Professor  
    Biological Sciences  
    B.Sc., Rollins College; M.S., Ph.D., Cornell University

    Assistant Professor  
    Health and Exercise Science  
    B.S., M.S., Southern Illinois University

    Professor  
    Psychology  
    B.S., Geneseo State College; M.A., Ph.D., Ohio State University

Mosto, Patricia (1993-2009)  
    Professor  
    Biological Sciences  
    National Teacher Certification, Teachers College N6; Licenciada in Biology (M.S.), University of Buenos Aires; M.A. equivalent, University of Texas at Austin; M.S., Drexel University; Ph.D., University of Buenos Aires
The Emeriti

Moyer, Mel (1967-2000)  
Psychology  
B.A., Glassboro State College; M.Ed., Temple University; Ed.D., Rutgers University

Murashima, Kumiko (1971-2007)  
Art  
B.F.A., Women's College of Fine Arts, Japan; M.F.A., Indiana University

Myers, John (1973-2011)  
Department of Sociology  
B.S., Drexel University; M.A., Ph.D., Fordham University

Neff, George (1962-2000)  
Art  
B.S., Kutztown University; M.A., Columbia University; Ed.D., Pennsylvania State University

Newland, Robert  
Department of Chemistry & Biochemistry  
B.A., Kalamazoo College; Ph.D., Wayne State University

Nichols, Lola (1960-1986)  
Elementary Education  
B.S., Trenton State College; M.A., Columbia University; M.A., Glassboro State College

O'Donnell, Carolyn 2004  
Theatre and Dance

Ognibene, Gerald (1972-2008)  
Special Education  
B.A., Niagara University; M.S., Canisius College; Ph.D., Ohio State University

Okorodudu, Corann (1968-2011)  
Psychology  
B.A., Cuttington College, Liberia; M.Ed., Ph.D., Harvard University

Orlando, Frank J. (1972-2008)  
Foundations of Education  
B.S., M.S., SUNY-Buffalo; Ed.D., West Virginia University

Pagell, Francesca Louise (1998-2012)  
Department of Health and Exercise Science  

Palladino, Mary Anne (1964-1994)  
Communications  
B.A., Immaculata College; M.A., Villanova University

Perry, Wilhelmina E. (1968-1997)  
Sociology  
B.A., Tilton College; M.A., Howard University; Ph.D., University of Texas

Pickett, Ethel (1968-1987)  
Home Economics  
B.S., University of Delaware; M.Ed., University of Maryland

Pike, Frank (1964-1987)  
Department of English  
B.A., Suffolk University; M.A., Boston College; M.Ed., State College at Boston

Pittard, Norma (1968-1987)  
Art  
B.A., Adelphi University; M.A., Columbia University; Ph.D., University of Maryland

Department of History  
B.A., Johns Hopkins University; M.A., University of Pennsylvania; Ph.D., Temple University
The Emeriti

Prieto, Andrew (1971-2008)  Professor  Biological Sciences  
B.A., Rutgers University; M.S., New Mexico State University; Ph.D., University of Missouri

Pritchard, Robert 1971-2011  Department of Accounting and Finance  
B.S., M.B.A., Drexel University, M.A., Ed.D., University of Pennsylvania

Pujals, Enrique J. (1969-2000)  Professor  Department of Foreign Languages and Literatures  
B.A., M.A., Indiana State University, Ph.D., Rutgers University

Putman, Mary Lee 1971-2011  Associate Professor  Department of Health and Exercise Science  
B.S., SUNY College at Cortland; M.A., University of Maryland; Ph.D., Temple University

Reeves, Edwin C. (1968-1996)  Assistant Professor  Reading  
B.A., M.A., Glassboro State College

Resnik, Benjamin (1965-1991)  Assistant Professor  Communications  
B.A., M.A., Glassboro State College

Richard Parker 1990-2013  Professor  Department of Marketing and Business Information Systems  
B.A., Queens College; M.B.A., Rutgers University; Ph.D., City University of New York

Richardson, Herbert A. (1966-1998)  Assistant Professor  Department of History  
B.M., M.M., Yale University, M.A., Ph.D., University of Pennsylvania.

Robinette, Joseph (1981-2005)  Professor  Theatre and Dance  
B.A., Carson-Newman College; M.A., Ph.D., Southern Illinois University

Robinson, Randall 1965-2000  Associate Professor  B.S., Ohio State University; M.S., University of Pennsylvania; Ed.D., Temple University

Rosenberg, Jerome J. (1973-2008)  Associate Professor  Special Education  
B.A., Oswego State Teachers College; M.A., Columbia University; Ed.D., Temple University; Ph.D., Heed University, West

B.S., The King's College; M.S., West Chester State College

Sakiey, Elizabeth (1974-2000)  Professor  Reading  
B.S., Eastern Michigan University; M.Ed., Ed.D., Rutgers University

Schreiber, Elliott (1967-1995)  Associate Professor  Psychology  
B.A., Upsala College; M.A., Bradley University; Ed.D., West Virginia University

Schultz, Charles 1972-2000  Professor  B.S., University of Michigan; M.S., Ohio State University; Ph.D., University of Michigan

Schwarz, Charles (1967-1999)  Assistant Professor  Mathematics  
B.A., St. John’s University; M.S., Fordham University; M.S., Adelphi University; Ed.D., Rutgers University

Scott, Joanne (1989-2009)  Associate Professor  Biological Sciences  
B.S., M.S., Bucknell University; M.A., Lehigh University; Ph.D., University of Texas, Medical Branch at Galveston

Scott, Richard 1972  Professor  Department of Geography and Environment  
B.A., University of Cincinnati; M.A., Ph.D., Syracuse University
Serfustini, Leonard 1971-1986
Department of Health and Physical Education
B.Ed., M.Ed., University of Buffalo; Ed.D., State University of New York

Shawver, Murl C. (1958-1974)
Life Sciences
B.S., Central Missouri State College; M.Ed., University of Missouri; Ed.D., Columbia University

Shontz, Marilyn L. (1999-2009)
Special Education Services and Instruction
A.B., Heidelberg College (Ohio); M.S. in L.S., Case Western Reserve University; Ph.D., Florida State University

Shrader, Edith (1959-1968)
Early Childhood Education
B.S., M.S., Glassboro State College

Simpson, Eugene (1975-2000)
Music
B.M., Howard University; B.M., M.M., Yale University; Ed.D., Columbia University

Sizemore, Warner (1966-1987)
Philosophy and Religion
B.A., East Tennessee State; M.A., Bob Jones University; M.A., Temple University; B.D., Lincoln University Theological Seminary

Smith, Steward (1968-1983)
Elementary Education
B.A., Rutgers University; M.Ed., Temple University

Sorrentino, Carmela 1965-2009
Teacher Education (Early Childhood, Elementary Education, Subject Matter)
B.S., West Chester State College; M.Ed., Temple University

Spear, Miriam (1967-1983)
Secondary Education
B.A., M.S., Glassboro State College

Stanley, Daniel (1966-1991)
Health and Physical Education
B.Ed., University of Buffalo; M.Ed., State University of New York; Ed.D., Temple University

Stansfield, Charles 1966-2007
Department of Geography and Environment
B.S., West Chester University; M.S., Pennsylvania State University; Ph.D., University of Pittsburgh

Stevens, Kathleen (1972-1998)
Communication
B.A., Georgian Court College; M.A., Glassboro State College (Rowan)

Stone, Don C. (1968-2000)
Computer Science
E. Eng. Phys., Cornell University; M.S.E., Ph.D., University of Pennsylvania

Strauss, Lois (1973-2014)
Psychology

Sullivan, Jane E. (1972-1999)
Reading
B.S., Seton Hall University; M.S., Ed.D., State University of New York, Albany

Taney, Mary C. (1967-1991)
Department of History
B.A., College of Saint Teresa; M.A., Ph.D., Catholic University; Litt.D., Universita Cattolica del Sacro Cuore, Milan, Italy

Tannenbaum, Margaret D. (1971-2000)
Secondary Education
B.A., Bryan College; M.Ed., Ed.D., Temple University
<table>
<thead>
<tr>
<th>Name</th>
<th>Position and Department</th>
<th>Education and Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tannenbaum, Theodore</td>
<td>Professor Sociology</td>
<td>B.A., M.A., Brooklyn College; Ph.D., Purdue University</td>
</tr>
<tr>
<td>Taylor, Albert</td>
<td>Professor Foundations of Education</td>
<td>B.S., Trenton State College; M.Ed., Ed.D., Rutgers University</td>
</tr>
<tr>
<td>Tener, Morton</td>
<td>Professor Secondary Education</td>
<td>B.S., Rider College; M.S., University of Pennsylvania; M.S., Ed.D., Temple University</td>
</tr>
<tr>
<td>Thyhsein, John</td>
<td>Professor Music</td>
<td>B.M., M.M., Eastman School of Music</td>
</tr>
<tr>
<td>Tomei, Mario</td>
<td>Professor Educational Administration</td>
<td>B.A., Montclair State College; M.S., University of Pennsylvania; Ed.D., Temple University</td>
</tr>
<tr>
<td>Tracey, James H.</td>
<td>Dean/Professor College of Engineering</td>
<td>B.S.E.E., M.S., Ph.D., Iowa State University</td>
</tr>
<tr>
<td>Travis, William</td>
<td>Professor Art</td>
<td>B.F.A., Philadelphia College of Art; M.F.A., Tyler School of Art</td>
</tr>
<tr>
<td>Tsuji, Thomas</td>
<td>Professor Technology</td>
<td>B.S., M.S., Stoudt State College; Ph.D., Michigan State University</td>
</tr>
<tr>
<td>Vivarelli, Thomas</td>
<td>Assistant Professor Special Education</td>
<td>B.A., Trenton State College; M.A., Glassboro State College</td>
</tr>
<tr>
<td>Vogal, Hal</td>
<td>Professor Public Relations and Advertising</td>
<td>B.A., Temple University; M.A., William Paterson College; Ph.D., Antioch University; APR</td>
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<tr>
<td>Wackar, Richard</td>
<td>Professor Health and Physical Education</td>
<td>B.S., M.A., Rutgers University</td>
</tr>
<tr>
<td>Wade, Thomas</td>
<td>Assistant Professor Music</td>
<td>B.M., Oberlin College; M.M., University of Connecticut</td>
</tr>
<tr>
<td>Ward, Hugh J.</td>
<td>Associate Professor Foundations of Education</td>
<td>B.S., M.A., Glassboro State College</td>
</tr>
<tr>
<td>Waring, Joseph</td>
<td>Associate Professor Physical Sciences</td>
<td>B.A., State Univ. of New York at Binghamton; M.S., State Univ. of New York at Oneonta; Ph.D., University of South Carolina</td>
</tr>
<tr>
<td>Washington, Judy</td>
<td>Associate Professor Teacher Education (Early Childhood, Elementary Education, Subject Matter)</td>
<td>B.A., Brooklyn College; M.Ed., Ed.D., Temple University</td>
</tr>
<tr>
<td>Wasserman, Burton</td>
<td>Professor Art</td>
<td>B.A., Brooklyn College; M.A., Ed.D., Columbia University</td>
</tr>
</tbody>
</table>
The Emeriti

Weatherford, Bernadyne (1987-2012)  
Economics and Political Science  
B.A., M.A., Texas Tech University; Ph.D., University of New Mexico  
Associate Professor

Weiss, Leigh 1968-2011  
Computer Science  
B.S., M.S., Buffalo State University  
Associate Professor

Welsh, Charles (1973-1992)  
Marketing  
B.S., Villanova University; M.B.A., Ph.D., University of Pennsylvania  
Professor

Westcott, Patrick (2003-2013)  
Department of Teacher Education (Early Childhood, Elementary Education, Subject Matter)  
B.A. University of Minnesota; M.A., University of Connecticut; M.A., Fairleigh Dickinson University; Ed.D., Teachers College Columbia University  
Associate Professor

Whitcraft, John (1961-1987)  
Philosophy and Religion  
B.A., Asbury College; M.A., Temple University; B.D., Asbury Seminary; S.T.M., Boston University  
Professor

Educational Leadership  
B.A., Keene State College; M.S., Indiana State University; Ph.D., University of Maryland  
Professor

Williams, Leonard J. (1990-2009)  
Psychology  
B.A., University of Delaware; M.A., McMaster University, Hamilton, Ont.; Ph.D., University of South Carolina  
Associate Professor

Home Economics  
B.S., M.S., Drexel University; Ed.D., Pennsylvania State University  
Assistant Professor

Department of English  
B.A., M.A., Ph.D., University of Pennsylvania  
Professor

Wood, A. Tage (1968-1987)  
Speech, Theatre, and Dance  
B.S., East Stroudsburg State College; M.Ed., University of South Dakota  
Associate Professor

Chemistry and Physics  
B.S., Glassboro State College; M.Ed., Rutgers University; Ph.D., Walden University  
Associate Professor

Wriggins, Thomas (1967-1992)  
Assistant Professor and Director of Support Services  
Education  
B.A., Glassboro State College; M.Ed., Temple University  
Assistant Professor

Young, Walter Byron (1972-1997)  
Art  
B.A., M.A., Glassboro State College; Ed.D., Pennsylvania State University  
Professor

Zahn, Richard (1960-1987)  
Foundations of Education  
B.S., West Chester State College; M.Ed., Ed.D., Temple University  
Professor

Zalusky, Donald (1966-1991)  
Physical Sciences  
B.S., M.A., University of Missouri; Ph.D., University of Delaware  
Associate Professor

Zimmerman, Donald (1961-1992)  
Elementary and Early Childhood Education  
B.S., M.A., State University of New York, Buffalo; Ed.D., Temple University  
Professor

Zimolzak, Chester 1974-2007  
Department of Geography and Environment  
B.A., Pennsylvania State University; M.A., University of Wisconsin  
Associate Professor
Middle States Commission on Higher Education
AACSB International - The Association to Advance Collegiate Schools of Business
ABET - Computing Accreditation Commission
ABET - Engineering Accreditation Commission
American Association of Colleges of Nursing - Commission on Collegiate Nursing Education
American Chemical Society
American Osteopathic Association - Commission on Osteopathic College Accreditation
American Osteopathic Association - Council on Osteopathic Postdoctoral Training Institutions
Certification in Education for Public Relations - Public Relations Society of America
Commission for Accreditation of Athletic Training Education
Council for Accreditation of Counseling and Related Educational Programs
Liaison Committee on Medical Education (provisional)
National Association of School Psychologists
National Association of Schools of Art and Design
National Association of Schools of Music
National Association of Schools of Theatre
National Council for Accreditation of Teacher Education
National Wellness Institute

Memberships
American Council on Education
American Association of State Colleges and Universities
American Association for Adult Continuing Education
American Association for Engineering Education
American Association of Colleges for Teacher Education
Association of American Colleges & Universities
Association of Governing Boards of Universities & Colleges
AACSB: The International Association for Management Education
BioNJ
Council of Graduate Schools
National Association of Schools
New Jersey College and University Coalition
New Jersey Council of Education
New Jersey Association of Colleges and Universities
Teacher Education Council of State Colleges and Universities
The College Board
Middle States Association of Colleges & Schools Inc.
New Jersey Association of Colleges for Teacher Education

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