

# **ROWAN UNIVERSITY**

**Undergraduate Catalog 2005-2007**

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# INTRODUCTION

## Rowan University in Brief

### Type

Comprehensive, coeducational, non-sectarian, state-supported, founded in 1923

### Colleges

Business, Communication, Education, Engineering, Fine and Performing Arts, Liberal Arts and Sciences

### Degrees

Bachelor of Arts, Bachelor of Fine Arts, Bachelor of Music, Bachelor of Science, Master of Arts, Master of Business Administration, Master of Music, Master of Science, Master of Science in Teaching, Educational Specialist, and Doctor of Education

### Campuses

Glassboro, NJ—Main (approximately 20 miles southeast of Philadelphia, PA) Camden, NJ—Branch

### Size

Approximately 7,318 full-time and 2,370 part time students; approximately 611 full-time equivalent (FTE) faculty

## Average Costs (2005-2006)\*

Tuition & Fees	Room & Board	Total
In State \$8,606.70	\$8,242.00	\$16,848.70
Out of State \$14,900.00	\$8,242.00	\$23,142.70

\*subject to annual change.

## Administrative Offices Telephone Numbers

Academic Affairs	256-4011	Information Resources	256-4401
Academic Success Center	256-4259	Judicial Affairs	256-4242
Admissions	256-4200	Library	256-4800
Bursar	256-4150	Main Switchboard	256-4000
Camden Campus	756-5400	President	256-4100
Career & Academic Planning	256-4456	Provost	256-4108
Counseling & Psychological Service Center	256-4222	Public Safety	256-4922
Dean, Business	256-4025	Recreation Center	256-4900
Dean, Communication	256-4340	Registrar	256-4350
Dean, Education	256-4750	Specialized Services	256-4233
Dean, Engineering	256-5300	Student Center	256-4601
Dean, Fine and Performing Arts	256-4550	Student Health Center	256-4333
Dean, Liberal Arts and Sciences	256-4850	University Relations	256-4240
Dean of Students	256-4040	VP Administration and Finance	256-4140
Development Office	256-5410	VP Student Affairs	256-4283
Disability Resources	256-4234	University Advancement	256-4095
Financial Aid	256-4250		

## 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 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 training. To counter the trend, the state decided to build a two-year training school for teachers, known then as a normal school, in southern New Jersey.

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 South Jersey 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 they selected Glassboro as the site.

The land tract included the Whitney mansion 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.

In September 1923, Glassboro Normal School opened with 236 young women arriving by train to convene in the school's first building, now called Bunce Hall. Dr. Jerohn Savitz, the University'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 to Glassboro State College to better reflect its mission.

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

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. With a 1978 Division III National Championship in baseball—the first of 11 national championships—the athletic program established itself as one of the premier athletic programs in the country.

The fifth president, Dr. Herman James, assumed the leadership of the college in 1984. Under his direction Rowan expanded by establishing the first doctorate program among the state's public institutions and adding the colleges of engineering and communication. Dr. James was also responsible for the construction of a new \$16.8 million library, an \$8.6 million student recreation center, and the \$30 million engineering school facility.

## INTRODUCTION

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. The college achieved university status in 1997 and changed its name to Rowan University.

To lead Rowan University into the 21st century, the Board of Trustees named Dr. Donald J. Farish as the sixth president in July 1998.

Today, Rowan University is divided into a Graduate School and six academic colleges: Business, Communication, Education, Engineering, Fine & Performing Arts, and Liberal Arts & Sciences. Rowan's nearly 10,000 students can select from among 36 undergraduate majors, 7 teacher certification programs, 26 master's degree programs and a doctoral program in educational leadership. The tree-lined campus contains 43 buildings, including eight residence halls, a townhouse complex, three apartment complexes, a Student Recreation Center and 33 computer labs.

Rowan is in the midst of an aggressive 10-year plan that will give the university a national reputation for excellence and innovation and will make it the public university of choice in the region. The plan calls for a greater campus-wide focus on academic and student support initiatives as well as more than \$536 million being spent on campus construction and renovation projects, including a \$45 million science building, which opened in 2003, the new \$28.5 million Education Hall and new athletic venues. New residence halls are being built to allow the University to become a traditional residential campus.

The University also purchased 600 acres in nearby Harrison and Mantua townships for a third campus. The anchor of the new campus will be the South Jersey Technology Park at Rowan University, which will play a significant role in the economic development of the region. The Tech Park is funded by a \$6 million grant from the state Economic Development Authority.

Over the years Rowan has earned a reputation as a high-quality, moderate-price university. These efforts have caught the attention of national organizations that evaluate colleges and universities. *US News & World Report* ranks Rowan University in the "Top Tier" of Northern Regional Universities. Kaplan included the University in "The Unofficial, Biased Insider's Guide to the 320 Most Interesting Colleges." Also, *Kiplinger's* named Rowan University one of the "100 Best Buys in Public Colleges and Universities" and the *Princeton Review* included Rowan in the latest edition of "The Best Northeastern Colleges."

From the modest normal school begun more than 80 years ago, the University has evolved into a Top Tier regional public university and is one of the most recognized and highly regarded colleges and universities in the state. Rowan has become an extraordinary comprehensive institution that has improved the quality of life for the citizens of New Jersey and the surrounding states.

## **The Rowan University Mission**

A leading public institution, Rowan University combines liberal education with professional preparation from the baccalaureate through the doctorate. Rowan provides a collaborative, learning-centered environment in which highly qualified and diverse faculty, staff, and students integrate teaching, research, scholarship, creative activity, and community service. Through intellectual, social and cultural contributions, the University enriches the lives of those in the campus community and surrounding region.

## **The Rowan Vision**

Rowan University, at the next level, will continue to focus on its commitment to learning and teaching, combining liberal education with professional preparation. Rowan will advance through the rankings of regional universities on the strength of its excellent undergraduate programs and its noteworthy development of a learning-centered environment. At the same time and without compromising the primacy of its focus on residential, undergraduate education, Rowan University will continue to build on its growing leadership in graduate and continuing professional education.

## The Rowan Experience

The pursuit of high qualitative standards for academic programs for Rowan University will be carried forward in the context of a philosophy that the ideal educational experience focuses on the development of students as whole persons while they are engaged in rigorous academic pursuits. While cultivating the complete intellectual, physical, emotional, social and cultural well being of all members of the University community, the Rowan experience is built upon residential learning communities, mentoring programs, a commitment to service learning and volunteerism, a required Rowan Seminar for incoming freshmen, and awareness of current findings in the study of student life. Additionally, the Rowan experience provides the opportunity for students to work closely with faculty and professional staff in research and professional activities. A principal goal at Rowan is to motivate all students to take responsibility for their own learning, which is the outlook most conducive to the strongest intellectual growth and development.

## Goals

(adopted from Five Year Plan, Strategic Objectives, 2003-2008)

### **Academic Programs**

High quality academic programs will provide opportunities for student research and collaboration. Student learning outcomes will be assessed to help students improve and maintain academic success and to assist the institution in monitoring quality. Programs will meet national standards of excellence through national accreditation, peer review and/or benchmarks against standards in the discipline.

### **Information Resources**

Rowan University will develop and maintain an effective technology infrastructure to support the university's information-system needs. Information Resources, along with Campbell Library, will play a significant role in assisting students and faculty in identifying and mastering rapidly developing technological resources that are such a dominant force in storing and transmitting information. In addition, Campbell Library will be a key participant in the University's efforts to ensure that all students attain a sufficient level of information literacy supportive of integrative learning.

### **Academic and Student Support**

Rowan University is committed to providing high quality, student-centered academic and student support services that increase and enhance retention and graduation rates. Implementation of a comprehensive and effective enrollment management plan will allow the university to maintain enrollment at current levels, continue to seek high quality students, assure diversity of the student body, and better accommodate student's admission into and progress toward completion of their desired majors.

### **Learning Community**

We will continue fostering a community of scholars dedicated to the concept of an integrated learning experience. Increased interaction between faculty and students, as well as the removal of artificial walls that traditionally stand between what students learn in and out of class, will become the hallmark of the Rowan experience. Interdisciplinarity and integrative learning will be stressed; living/learning programming will be enhanced; educational programs and student support services will be integrated, and residence hall programming will be further developed. We will broaden our understanding of teaching to incorporate helping students to develop in settings outside of the classroom.

### **International/Multicultural Understanding**

We will continue to develop students' understanding of the similarities and differences among various cultural groups and enhance their appreciation of other cultures and of the worth of all individuals regardless of cultural background. Importantly, to move beyond tolerance in intergroup relations on campus will require both curricular and co-curricular activity.

### **Community Service**

We embrace our mission of providing service to our community and region, and promote an enhanced sense of civic responsibility and a higher level of civic engagement for all members of the Rowan community. Rowan University is one of the major economic engines of South Jersey, and is also the major cultural and intellectual center in the area. We provide services, life-long educational opportunities for the workforce, cultural events and resources, and enrichment of the intellectual life of the region.

### **Organization of the University**

Under the leadership of its Board of Trustees and its chief executive officer, the president, Rowan University is organized into five divisions. The provost directs the University's academic affairs and oversees its strategic planning efforts; the vice president for student affairs directs student and academic support services; the vice president for administration and finance directs financial, budgetary and administrative functions; the vice president for university advancement directs development and alumni relations; and the vice president for university relations directs the institution's communications efforts.

The division of academic affairs is composed of a Graduate School and six academic colleges: Business, Communication, Education, Engineering, Fine & Performing Arts and Liberal Arts & Sciences—each directed by a dean. The provost and the four associate provosts direct academic affairs and information resources.

In addition to its Glassboro campus, the University maintains a branch campus in Camden, New Jersey. Geared to meet the needs of urban residents, the Camden campus offers several baccalaureate degree programs as well as a full range of general education offerings.

Assessment of the work accomplished in the four divisions is integrated in the planning cycle of the University. Student participation in the assessment effort is expected and will be an important contribution to the learning experience.

## Selected Financial Information

### Fees at Rowan

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 2005-06 are:

Admissions Application

(Graduate and Undergraduate):	\$50
Meal Plans:	
19 Meal Plan with \$400.00 Flex	\$3,020
14 Meal Plan with \$500.00 Flex	\$2,900
10 Meal Plan with \$600.00 Flex	\$2,720
7 Meal Plan with \$700.00 Flex	\$2,350
Unlimited Meal Plan \$300.00 Flex	\$3,310
Freshman Acceptance Fee (not refundable)	\$100
Housing in	
Residence Hall	\$5,222-\$6,106
Residence Hall Security Deposit	\$200
Residence Hall Lock-Out Fee	\$5
Housing in Edgewood Park Apartments	\$5,464
Housing in Mansion Park Apartments (+electricity)	\$4,684
Housing in Triad Apartments	\$5,464
Apartment Security Deposit	\$200
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	\$30
Student Accident and Health Insurance (subject to change)	\$120
Student Activity	
(p-t)	\$3.75/credit
(f-t flat rate)	\$56.25/semester
Student Center Fee	
(p-t)	\$19.35/credit
(f-t flat rate)	\$232.60/semester
General Services Fee	
(p-t)	\$24.40/credit
(f-t flat rate)	\$292.50/semester
Instructional Technology Fee	
(undergrad. matric & p-t)	\$11.70/credit
(f-t flat rate)	\$140/semester

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Facilities Fee	
(p-t)	\$48/credit
(f-t flat rate)	\$435.00/semester
Student Teaching	\$180
Transcript	\$5
Music Practice Room Key Deposit	\$10
Library Fines	
First Notice	\$1
2nd Notice	\$3
3rd Notice	\$6

Cost of book replacement (\$30 + fine) thereafter. 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.

#### **Undergraduate tuition rates (2005–06) are:**

New Jersey resident (p-t)	\$262/credit
(f-t flat rate)	\$3,147
Non-resident (p-t)	\$524/credit
(f-t flat rate)	\$6,294

#### **Graduate tuition rates (2005–06) are:**

New Jersey resident (p-t)	\$549/credit
(f-t flat rate)	\$4,493
Non-resident (p-t)	\$880/credit
(f-t flat rate)	\$7,917

### 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 by July 6. A similar statement will be mailed 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 University invoice and in the Bursar's Office. 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.

	<i>Yearly Residents</i>	<i>Commuters</i>
Tuition (30 cr/year is average load)	\$6,294.00	\$6,294.00
General Service Fee	585.00	585.00
Instructional Technology Fee	280.00	280.00
Student Activity Fee	112.50	112.50
Student Center Fee	465.20	465.20
Facilities Fee	870.00	870.00
Room and Board	\$8,242.00*	
<b>Total expenses</b>	<b>\$16,848.70</b>	<b>\$8,606.70</b>

\*Based on the following:

Residence Room (double)	\$5,222.00
19 Meal Plan	\$3,020.00

Tuition and fees for full-time out-of-state students is \$14,900.70/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 a unlimited, 19, 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 at the rental of \$2,611 (double) per semester for residence halls and \$2,732 per semester for Edgewood Park and Triad Apartments. Rates, which here are reported for 2005-2006, are subject to change as approved by the Board of Trustees. The apartment rate is based on an occupancy of four persons per apartment. Also, apartments are available in our Mansion Park Apartment Complex at a rate of \$2,342 per semester plus utilities.

Security deposits are required with application. Deposits are refunded when a reservation is canceled within the time frame set by Residence Life.

## **General Services Fee**

This fee is charged to all students at \$24.40 per credit hour with a maximum of \$292.50 semester for general services that include: health examinations, use of health center, access to medical help, placement service, counseling service, graduation expenses (including the diploma) and other services not funded by the state.

## **Instructional Technology Fee**

This fee is charged to all students at \$11.70 per credit hour with a cost to full-time students of \$140/semester for technological services which includes new equipment and maintenance of current equipment.

## **Student Activity Fee**

This fee is charged only to undergraduate, matriculated students at \$3.75 per credit hour with a maximum of \$56.25 per semester. The fee has been established and regulated by vote of the student body. The Student Government Association directs the budget of the monies received from this fee. The funds pay for student organizations, athletics and social functions.

### **Student Center Fee**

This fee is charged to all students at \$19.35 per credit hour with a maximum of \$232.60/semester. Total construction costs for the Student Center building, including costs of the bond sale and assumed interest rate, were approximately \$6,000,000. Therefore, it is necessary to assess the student body a fee to cover the operating expenses and amortization cost of the building, as well as use of the Recreation Center.

### **Recreation Center**

Access to the recreation center is available to all enrolled students. Associate memberships for faculty, staff, and alumni are also available. For information on associate memberships, contact the recreation center at 256-4900.

### **Facilities Fee**

This fee is charged to all students at \$48.00 per credit hour with a cap of \$435.00 /semester. The facilities fee is to help defray the cost of the debt service on recently constructed or renovated buildings plus the operation and maintenance cost of newly constructed buildings.

### **Late Payment Fee**

Students on Deferred Payment Plan who fail to pay bills by the date due will be charged a nonrefundable 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 \$30. 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.

### **Student Insurance**

As a service to students, Rowan University makes available a low cost health and accident protection plan. The \$120 fee includes coverage for twelve months. Additional coverage for a student's spouse and/or children may also be purchased. 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.

## **Student Teaching Fee**

All teacher preparation students pay a student teaching fee of \$180 which covers the normal expenses incurred in the program, including a payment to the cooperating teacher. Students will be billed for this fee prior to the semester in which they are enrolled for student teaching.

## **Transcript Fee**

A transcript is provided to each student upon graduation. Additional transcripts are available through the Registrar's Office for \$5 each.

## **Refund Policy**

Refunds will be prepared for all students who officially withdraw from the University. Requests for official withdrawal must be made through the Counseling Center. This procedure assures that students will receive the proper refund for tuition, fees, room and board charges.

## **Approved Refund Schedule**

### **Tuition, General Services Fee, Student Center Fee, Technology Fee, Student Activity Fee and Facilities fee only.**

**Part-Time students:** Written notice, using a Withdrawal Form (available from the Registrar's Office) must be submitted to the Registrar. The date of receipt of the Withdrawal Form in the Office of the Registrar will be used in computing the refund.

**Full-Time students:** Refunds will be processed only for students who officially withdraw from all of their courses. There is no refund for withdrawal from individual courses.

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

Withdrawal before end of Add/Drop

Registration	100%
First third of semester	40%
Withdrawal after first third of semester	None

## **Room and Board**

Refunds for residence halls and for meal plans will be calculated as of the Sunday and Friday (respectively) immediately following the date of the student's official withdrawal. Refunds for room shall be prorated 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.

## **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, Business Office, or the dean of students in Savitz Hall.

# ADMISSIONS

## Office of Admissions

**Marvin G. Sills, Director**

**Savitz Hall**

**(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 as it meets the challenges of the future. 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.

## Freshman Admissions

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 I or ACT exam no later than the January testing date to ensure receiving all test scores by the admission deadline date. This is also the appropriate time to request that mid-term senior grades be sent to the Admissions Office. Priority Admission: all complete applications received by January 31<sup>st</sup> will receive a decision by March 1<sup>st</sup>.

**March** - All applications, official high school transcripts and SAT I/ACT scores, must be complete and received by the Admissions Office by March 15.

## Electronic Application

Freshman and transfer students have the option to apply electronically for admission to Rowan University through the links provided on the Rowan web site.

Electronic application requires credit card payment of the application fee at the time of application submission. Other types of fee payment such as personal check or money order require using the paper application. Once received, electronic applications are processed according to the same standards, procedures, policies and timelines as paper application.

## 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](http://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](http://www.act.org).

## **Early Admission**

Rowan will consider an applicant just completing their junior year in high school. Students applying for early admission should be exceptionally well qualified, and have the support of family and high school officials. An interview is required for early admission.

## **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 or during the semester for which he/she was accepted.

In order to undertake such a plan, the University recommends one of two procedures. The first is simply to take a year off and apply to Rowan University for admission in the fall of the year following graduation. The second is to apply during the fall term of the senior year, outlining a tentative plan of work, travel or other activity for the intervening year and requesting a decision on the regular date, but for deferred entrance. Candidates so admitted must file a form confirming their intent to enroll with an admission deposit by the following December.

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 ungraded, 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

Students applying for admission to Rowan University are encouraged to visit the campus. Campus tours are offered twice a week throughout most of the year. The University also holds several open house programs throughout the year. Specific dates are listed in admissions publications and on the Rowan University website [www.rowan.edu](http://www.rowan.edu). Individual interviews are not required unless specifically requested by the Admissions Office. If applicants feel an interview would be helpful, they can arrange an appointment time by calling (856) 256-4200.

## 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 \$50 non-refundable application fee by March 15 for September entrance (February 15 for Elementary Education majors) or November 1 for January entrance. Late applications for September may be considered on a space-available basis.
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 I 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 associates 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 ([njtransfer.org](http://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 Theatre 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 Nov. 1.

## **Application Fee/ Enrollment Deposit**

A \$50 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 \$50 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 – Adult Learners**

Rowan University has a special admission program designed to provide adult students who have been out of high school for three years or more with an opportunity to be evaluated for admission on more than the traditional academic information. Adult students' life and work experiences, special talents and motivation supplement traditional academic records in the evaluation of their chances for success at Rowan University. The specific requirements include: high school diploma or GED and SAT I or ACT results; résumé of work, home or military experience, three letters of recommendation and a personal interview.

## **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**

In September 1968, Rowan University instituted the Martin Luther King Scholars 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, personal interviews and assessment of potential rather than the accuplacer 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 the 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. Please contact the Office of International Student Services by phone 856-256-4239 or email [internationalstudents@rowan.edu](mailto:internationalstudents@rowan.edu) or visit our website [www.rowan.edu/internationalstudents](http://www.rowan.edu/internationalstudents) for detailed information.

## **Placement/Basic Skills/ Testing Requirements**

All freshmen and transfer students with less than 25 credits are required to take placement tests prior to registering for course work. These tests are designed to determine competency levels in the cognitive skill areas of mathematics, reading, and writing. Instructions for taking the placement examinations are included in the admission acceptance package. Students who are required to enroll in basic skills courses must complete such courses within one year. If the requirement is not satisfied within the required time, students are recommended for suspension. Basic skills courses do not count toward the minimum number of semester hours needed to complete the students major and/or degree requirement.

Students majoring in mathematics, engineering, physical or computer science must also take a calculus-ready test.

Students may also choose to take a Computer Competency Exam at the same time as the placement tests for reading and mathematics. The computer competency requirement may be fulfilled in one of three ways:

1. pass the Computer Competency Exam.
2. pass a three-credit Computer Literacy course.
3. transfer credit for a Computer Literacy course.

## **Post-Baccalaureate Certification Program**

The Post-Baccalaureate Certification Program is a non-degree, undergraduate program that enables bachelor degree holders to obtain professional certifications in teaching, school nursing and cartography/geographical information systems (GIS). The requirements and curricula of the post-baccalaureate programs are similar to the requirements and curricula listed for the corresponding undergraduate degree programs. The teacher and school nurse certification programs offered under the Post Baccalaureate Certification Program have the same national accreditation and/or state approval as the undergraduate programs listed under College of Education. Admission to post-baccalaureate programs is coordinated through The Graduate School. Please see The Rowan University Graduate Catalog for more information or [www.rowan.edu/graduateschool](http://www.rowan.edu/graduateschool).

## **Re-entrance /Re-admission to the University**

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 degrees must apply for readmission to the University, following the reentrant application procedures, in order to regain matriculated status, become eligible to enroll in restricted course work, and request a Rowan degree. Students who lost their matriculated status due to graduation and would now like to return to Rowan to pursue a second bachelor's degree in an unrelated area must follow transfer application procedures (see Transfer Admission).

Students seeking re-entrance to the University must file the "Re-Entrant Application" by May 1 for fall semester entrance or November 1 for spring semester entrance. Any additionally required application materials must also be received in the Admissions Office by these deadline dates. Reentering students are required to return to the major under which they were matriculated at the time of leaving the University. However, once rematriculated, students may choose to pursue an internal transfer to a different major through the Career and Academic Planning Center.

As part of the application process, students who were officially dismissed from the University must submit a written statement describing their activities since dismissal and three letters of recommendation. They must also arrange an interview with an authorized Admissions Office staff member. Students who have been dismissed for academic reasons may not register for any Rowan University courses, except basic skills course work. Students dismissed for disciplinary reasons may not take any Rowan courses until formally readmitted and re-matriculated to the University. Completed re-entrant applications are reviewed and evaluated by the Admissions Committee and, in some cases, the applied major's academic department. Readmission to some majors requires departmental approval.

# FINANCIAL AID

## Financial Aid

**Luis Tavarez, Director**

**Savitz Hall**

**Phone: (856) 256-4250**

**Fax: (856) 256-4413**

**[financial\\_aid@rowan.edu](mailto:financial_aid@rowan.edu)**

Rowan University believes that all qualified students should have the opportunity to attend the University regardless of their financial resources. Rowan University offers financial assistance through scholarships, grants, loans and work programs. The cost of tuition at Rowan University is far less than that of many other colleges because of the substantial subsidy received from the State of New Jersey.

Students seeking assistance must file the Free Application for Federal Student Aid (FAFSA). The FAFSA is also used to determine eligibility for state aid. The FAFSA may be obtained from any secondary school guidance office, on the Web, or by contacting the Rowan University Office of Financial

Aid. Rowan encourages applicants to file their FAFSA on the web ([www.fafsa.ed.gov](http://www.fafsa.ed.gov)). It is very important to designate Rowan University as a college choice by using Rowan University's federal school code 002609 on the FAFSA.

As the result of completing and filing the FAFSA, the student will receive a Student Aid Report (SAR) from the Federal Processor. Students should read and follow all instructions on the SAR.

## Federal Return of Title IV Funds Policy

Students who receive federal financial aid - including loans - that withdraw or drop out of all of their classes on or before completing 60% of the semester will have their financial aid awards prorated. For more information, visit the financial aid office or our web site [www.rowan.edu/studentaffairs/financialaid/application\\_requirements/\\_withdrawal/index.html](http://www.rowan.edu/studentaffairs/financialaid/application_requirements/_withdrawal/index.html)

## 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 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.

## 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 \$2,625 for their freshman year, \$3,500 for their sophomore year, and up to \$5,500 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 Direct Stafford Loans:

1. Subsidized: If the student demonstrates need based on the Student Aid Report, the federal government will pay the interest charge while the student is enrolled at least half-time. Students must pay the interest charge during the repayment period following graduation or withdrawal from the university.
2. Unsubsidized: All matriculated students enrolled for six credits or more may receive a Federal Direct Unsubsidized Stafford Loan regardless of family income. However, the student will have to pay all interest charges 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. To request a PLUS loan, the parent(s) must complete the Rowan University PLUS loan application, which is available at the Rowan Office of Financial Aid.

## 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, check our web site at: [www.rowan.edu/studentaffairs/financialaid/types/work\\_study/index.html](http://www.rowan.edu/studentaffairs/financialaid/types/work_study/index.html).

## Institutional Work Study Program

Students not eligible for the Federal Work Study (FWS) program and who are interested in employment should apply through the Financial Aid Office for Institutional Work Study (IWS) opportunities. The University offers student jobs during the academic year and summer. Positions vary from general office to pre-professional opportunities. Many work study positions provide skills and experiences, 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/studentaffairs/financialaid/types/work\\_study/index.html](http://www.rowan.edu/studentaffairs/financialaid/types/work_study/index.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. The New Jersey Higher Education Assistance Authority notifies students of their eligibility.

### Distinguished Scholars Program

The Distinguished Scholars Program provides a \$1,000 annual scholarship award for up to four years of undergraduate study at a New Jersey college or university and is renewable as long as satisfactory academic progress is made. Students are selected by their high schools and the New Jersey Office of Student Assistance.

### 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 should write to request application forms from the Director of Admissions, Rowan University, Glassboro, NJ 08028. Rowan University's Educational Opportunity Fund Office can provide more information.

### Satisfactory Progress Toward a Degree

Satisfactory academic progress (SAP) towards the degree is necessary in order to receive financial aid from the state and federal programs. Satisfactory academic progress towards the degree is determined by the completion of coursework as well as the cumulative grade point average.

### Satisfactory Academic Progress Requirements for Students Receiving Federal and/or State Funding

There are strict guidelines regarding Satisfactory Academic Progress and maintaining eligibility to receive federal and/or state funding. Students experiencing academic difficulty may find that, while permitted to remain in school, their financial aid may be forfeited if they fail to meet the minimum SAP standards outlined below.

Each year a student's progress will be measured by comparing the number of attempted credits with the credit hours earned. This includes any course for which the student has remained enrolled past the Drop/Add period, also courses not completed such as (W, WP, WF, NC, NA, INCs).

A student must complete 70% of credits attempted at Rowan University to maintain satisfactory academic progress. (Audited courses are not considered credits attempted.) A student is eligible to receive funding up to 171 attempted credit hours. Special Admission Programs are allowed to receive funding up to 180 credits. Some programs limit funding on a semester basis. Transfer credits are counted toward the 171/180 limit. Additionally, students must maintain minimum GPA that exceeds the Academic Dismissal threshold or 0.9 – whichever is greater. See Academic Dismissal/Academic Warning in this catalog.

Students who progress at the minimum rate established herein will run out of eligibility for certain state financial aid programs prior to completing their degree. These guidelines apply to all undergraduate programs. Students may appeal the removal of financial aid if there are mitigating circumstances. If the appeal is approved, aid will be reinstated. A brochure further detailing the SAP requirements is available in the Financial Aid Office.

## **Rowan University Scholarships**

Rowan University applauds and rewards academic success through an extensive scholarship program. Scholarships are awarded to qualified first-year students. In many cases, the award continues through four years. Departments and committees make scholarship awards based on eligibility criteria and may require more detailed information from each student applicant. The Office of Admissions reviews each applicant's academic record and recommends candidates to the individual committees for selection and approval. Additional information regarding scholarships may be obtained by contacting the Office of Admissions.

### **Presidential Scholarships**

Offered to students ranking in the top 10 percent of their high school class with combined SAT I math + critical reading score of 1,300 or better. 3.0 GPA required for renewal each semester. New Jersey and out-of-state residents receive \$8,000 per year for four years credited to tuition and a residence hall room.

### **Rowan University Outstanding Scholars Recruitment Program**

Primarily funded by the state, rewarding New Jersey high school graduates who have achieved academic distinction as indicated by high school percentile rank and SAT I (math + critical reading) score. The following chart shows the level of reward based on a student's academic record.

<b>SAT I Range</b>	<b>Class Rank Range</b>	<b>OSP Award</b>
1,500-1,600	95-100	\$10,900
1,400-1,490	95-100	\$10,400
1,350-1,390	95-100	\$9,000
1,300-1,340	95-100	\$8,500
1,250-1,290	95-100	\$4,700
1,500-1,600	90-94	\$10,400
1,400-1,490	90-94	\$9,000
1,350-1,390	90-94	\$8,500
1,300-1,340	90-94	\$8,400
1,250-1,290	90-94	\$4,400
1,500-1,600	85-89	\$4,700
1,400-1,490	85-89	\$3,800
1,350-1,390	85-89	\$3,300

### **Trustee Scholarships**

Offered to students ranking in the top fifth of senior class and scoring 1,150 or better on SAT I. New Jersey residents receive at least \$2,000 per year for four years and out-of-state residents receive at least \$4,000 per year for four years credited to tuition.

### **Trustee Minority Scholarships**

Offered to minority students with outstanding academic records. New Jersey residents receive up to \$4,000 per year for four years and out-of-state residents receive up to \$8,000 per year for four years credited to tuition.

### **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.

**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. \$750 yearly for four years.

**Rowan University Foundation Scholarships**

\$500 yearly for four years offered to outstanding freshmen students. 3.0 GPA required for renewal.

**William H. Myers Memorial Scholarships**

Offered to first-time, full-time minority students with outstanding academic record. The scholarships are for \$1000 yearly for four years.

**Art, Music and Theatre Department Scholarships**

Variable award amounts offered to incoming freshmen and transfer art, music and theatre arts majors with demonstrated talent and academic achievement.

**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.

**Amoresano Scholarships**

Offered to incoming freshman business majors with outstanding academic records. \$1,250 one time award.

**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 ([see www.rowan.edu/financialaid/type/scholarships/hscriteria](http://www.rowan.edu/financialaid/type/scholarships/hscriteria)) are eligible to receive a \$8,000 annual stipend in the GHSF program plus an additional \$8,000 annual stipend through the Rowan's Presidential Scholarship. The scholarships are to be used exclusively for academic expenses such as tuition, fees, room, board, and textbooks. In all, each Glassboro High School Scholar will receive \$16,000 a year, enough to cover all the expenses of a full-time undergraduate student who chooses to live on campus.

**Army ROTC Program**

Rowan University participates in the U.S. Army Reserve Officers Training Corps (ROTC) Program in conjunction with Drexel University. The primary purpose of Army ROTC is to provide leaders of character for the 21st century. Students can enroll in ROTC and participate in a uniquely interactive program focused on leadership development with emphasis on self-discipline, integrity, confidence, and responsibility. Our intent is to help the student improve whether they decide to pursue a career as an officer in our Army or in the private sector.

Students can join the program without any obligation either to complete it or to serve in the Army. Qualified students only sign a contract to serve in the Reserve Forces or Active Army when they begin their junior year or upon receiving an ROTC scholarship.

Army scholarships offer an excellent incentive to join the ROTC program. 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. An additional scholarship benefit is a \$600 yearly book allowance. Army scholarship winners also receive a tax-free stipend of \$250- 400 per a month, depending on academic year, for up to 10 months for each year the scholarship is in effect and the student is in school. Non-scholarship students receive the book allowance and the stipend if they contract their junior year.

Students with prior service or who are currently in the National Guard or Army Reserves may enter the program as Simultaneous Membership (SMP) cadets when they begin their junior year. SMP cadets receive an SMP Kicker of \$350 a month from the Reserve Component plus an additional \$350-400 per month from ROTC as well as any benefits received from the Guard or Reserve. SMP cadets earn their commission in two years. Certain stipulations apply.

If interested, students may contact the campus ROTC Office in the Carriage House at 856-256- 4014 or 215-590-8808/8809. For additional information, refer to [www.taskforcedragon.com](http://www.taskforcedragon.com), or [www.armyrotc.com](http://www.armyrotc.com).

### **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 further information on the cross-enrollment program, scholarships, and career opportunities, contact the Professor of Aerospace Studies, AFROTC Det 750, Saint Joseph's University, Philadelphia, PA 19131; 610-660-3190; [rotc@sju.edu](mailto:rotc@sju.edu).

## **Upperclass Scholarships**

Scholarships are available to upperclass students through the University Scholarship Committee. Information is available in the Dean of Students Office. Applications are available at the beginning of the spring semester.

- AFT Martin Luther King, Jr. Memorial Scholarship
- AFT Memorial Scholarships
- AFT John J. Schaub Memorial Scholarship
- AFT Paul K. Tong Memorial Scholarship
- Robert Becker Memorial Scholarship
- Marion and William Bickley Memorial Scholarship
- Robert D. Bole Memorial Scholarship
- Elizabeth M. Bozorth Recruitment Grant
- Conectiv Electric Scholarship
- Dr. L. Ward Broomall Memorial Scholarship
- Marian E. Englehard Scholarship
- Sharon Edwards Scholarship
- Broome Alumni Association Undergraduate Scholarships
- Marius H. Livingston Memorial Scholarship
- AFL-CIO Peter J. McGuire Scholarships
- Irving Shipkin Scholarship
- Mabel Spencer Scholarship
- Mildred King Sangree Scholarship
- Albert J. Taylor AFL-CIO Scholarship
- Hazel P. Valiant Scholarship
- Beatrice Miller Van Doren Memorial Scholarship

# STUDENT AFFAIRS

## Student Affairs

**Drew Calandrella**

**Vice President for Student Affairs**

**(856) 256-4283**

**calandrella@rowan.edu**

**Joanne K. Damminger**

**Executive Assistant for Student Affairs**

**(856) 256-4453**

**damminger@rowan.edu**

**Savitz Hall**

The Division of Student Affairs directly supports the recruitment, retention, graduation, and satisfaction of Rowan University students by providing comprehensive and integrated student services programs for all students.

The goal of the Division of Student Affairs is to provide comprehensive academic and student support programs and services to provide the environment for students to clarify their educational, career and life goals, and in the development of educational plans that will assist them in their attainment of academic success. The programs and services of the Division of Student Affairs assist students with their transitions into, through, and out of Rowan University.

The departments within the Division of Student Affairs include: Admissions, Athletics, Academic Success Center (Basic Skills/Tutoring and Disability Resources) Career and Academic Planning (CAP) Center, Counseling and Psychological Services, Dean of Students, Department of Athletics, Dining Services, EOF/MAP, Financial Aid, International Student Services, Judicial Affairs, Multicultural Affairs, Public Safety, Recreation Center, Registrar, Residence Life and University Housing, Service Learning and Volunteerism, Student Center, Student Health Center, and Student Information Services. These departments are responsible for numerous programs including Greek Life, Intramurals, Mentoring, Orientation, Scholarship, Student Leadership and the Student Government Association.

## Residence Life and University Housing

**George Brelsford, Associate Vice President for Student Affairs/Dean of Students**

**Savitz Hall**

**(856) 256-4266**

**brelsford@rowan.edu**

**Mark Wagener, Director of Housing and Business Services for Student Affairs**

**(856) 256-4266**

**wagener@rowan.edu**

## Mission Statement

The Office of Residence Life 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.

## Mandatory Housing

All freshmen and sophomores not living at home must live in campus housing. Additional information is available in the Residence Life and University Housing Office.

## Residence Facilities

Rowan University offers two types of on-campus housing, co-ed residence halls and furnished apartments.

### All residence halls are substance and smoke free

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

In addition to the Rowan Townhouses, the University owns and operates three fully furnished apartment complexes:

- Edgewood Park
- Mansion Park
- 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 University Housing Office, Savitz (856) 256-4266.

## Residence Hall Programming

Residence Life and University Housing coordinates a program designed to ensure a high quality of life in all on-campus residences. Each residence is staffed with student staff members who assist resident students in developing intellectually, morally, vocationally, physically and socially. The Residence Life staff works to provide a living/ learning environment in each residence using the vehicle of residence programming. Each Residential and Campus Life staff member has close contact with the students. The staff's primary function is to know the residents and to impart a personal touch of friendship and assistance to build a sense of community within the residence. In addition the Office coordinates student leadership development, programs in commuter affairs, alcohol/drug awareness, and Greek affairs. The staff also assists faculty/staff advisors throughout the year as they work with student organizations.

Concerns dealing with housing or residence life should be directed to Residence Life, Savitz (856) 256-4266.

## **Student Rights and Responsibilities**

**George Brelsford, Dean of Students**

**Savitz Hall**

**(856) 256-4040**

**brelsford@rowan.edu**

Rowan University's primary concern is the student. The University provides an environment where students can pursue academic endeavors, social growth and individual self-discipline. To foster this type of development, students can exercise certain rights and must meet certain responsibilities.

In all matters, both academic and co-curricular, students have the right to fair and impartial treatment. They have the right to freedom from unlawful discrimination based on race, color, creed, religion, age, sex, sexual orientation, national origin or physical disability.

Students have the right to engage in the free and peaceful expression of ideas. They may speak, write or publish freely on any topic in accordance with the guarantees of federal and state constitutions. As members of the Rowan University community, students have the right to participate in discussions at the University. They have the right to engage in peaceful and orderly picketing demonstrations and protests so long as they do not violate public law or disrupt functions of the University.

Students at Rowan University (including their persons, living quarters, papers and personal effects) are secure and free from illegal searches and seizures.

It is the responsibility of the student to become knowledgeable of, and to observe, all University policies, regulations and procedures. The University is under no obligation to waive a requirement or grant an exception because a student pleads ignorance of a policy, regulation or requirement or because a student asserts that he/she has not been informed of such policy, regulation or requirement.

It is the student's responsibility to become familiar with, and to remain informed about, all academic, administrative, financial or other policies, regulations or requirements concerning admission, registration, payment of tuition or fees, continued enrollment, grades and satisfactory program progress, graduation requirements or any other matter which affects the student. Students are especially expected to know the requirements of the program in which they are enrolled. While the faculty and staff will endeavor to assist in every manner possible, students are responsible for becoming and remaining informed of current program and graduation requirements, their status in the program and their progress toward graduation.

## **Sexual Harassment**

Harassment on the basis of sex violates Section 703 of Title VII of the Civil Rights Act of 1964 and is not tolerated on the Rowan University campuses. Unwelcome sexual advances, requests for sexual favors and other verbal or physical conduct of a sexual nature constitute sexual harassment when:

- submission to the sexual advances is a condition of employment (or academic success) expressed in explicit or implicit terms;
- employment decisions (or academic decisions) are based on an employee (or a student) submitting to or rejecting sexual advances;
- such conduct has the effect of substantially interfering with an affected person's work performance or of creating an intimidating, hostile, or offensive work (or learning) environment. Students who feel they may have been sexually harassed, as a first step, may (1) file an incident report with the Office of Residence Life and University Housing in Savitz; or (2) file an incident report with the Office of Public Safety in Bole Annex; or (3) file an incident report with the Office of Judicial Affairs in Savitz.

## **Student Code of Conduct**

**Joe Mulligan, Assistant Dean of Students**  
**Savitz Hall 339**  
**(856) 256-4242**  
**[mulligan@rowan.edu](mailto:mulligan@rowan.edu)**

Rowan University is an academic community and as such the University has instituted a Student Code of Conduct to set forth the standards and expectations that are consistent with its purpose as an educational institution. The University reaffirms the principle of student freedom, coupled with an acceptance of full responsibility for one's behavior and the consequences of such behavior. Rowan University recognizes the rights of its students guaranteed by the Constitution of the United States and the State of New Jersey, which include a student's rights within the institution to freedom of speech, inquiry, assembly, peaceful pursuit of an education, and reasonable use of services and facilities of the university. While it is the goal of the student disciplinary process to educate students as to the purpose and importance of abiding by the Code of Conduct, the University will also issue sanctions as are appropriate and necessary to ensure continued and/or future adherence to this Code, and to protect the university community from disruptive behavior. The Code of Conduct has been developed to guarantee procedural fairness to students when there has been an alleged failure to abide by Rowan University's policies and regulations. Procedures may vary in formality given the gravity and nature of the offense and the sanctions that may be applied.

The Office of Judicial Affairs is responsible for coordinating and adjudicating all University policy violations through oversight of the Campus Hearing Board and Administrative hearing officers as well as the Appeals process. Judicial Affairs is also responsible for tracking the completion of all disciplinary sanctions and addressing any noncompliance. Each student is responsible for reading and complying with the Code of Conduct which is published in the Student Information Guide and available at [http://www.rowan.edu/studentaffairs/main\\_office/Publications/Infoguide.pdf](http://www.rowan.edu/studentaffairs/main_office/Publications/Infoguide.pdf).

## **Hazing**

The University expressly forbids the practice of hazing students in the process of initiation into fraternities, sororities or other student organizations. Such action is a criminal offense in New Jersey.

## **Student Government Association**

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.

The SGA is administered by an elected executive board and senate consisting of student representatives of academic departments, classes and bureaus. Students interested in running for or being appointed to a position in SGA may seek information in the SGA suite on the main floor in the Student Center or contact Nancy Fox extension 4540.

## Other Student Organizations

At Rowan University, SGA charters and finances over 100 student organization's. 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 current student activity fee is \$3.75 per credit hour. The Student Government Association assumes the responsibility for distributing all monies to the various organizations.

## All-University Committees

In recent years all-University committees have become another effective governance force. Composed of students, faculty and administrators, all-University committees are appointed by the president of the University. All members of these committees have equal vote.

## Orientation Program

The University holds an orientation program during the month of June for all incoming freshmen and parents. During this time freshmen and their parents learn more about Rowan's academic programs, student services, university life in general and the Rowan University campus and its campus activities in particular. Students obtain Rowan University identification cards.

A one-day orientation for all transfer students is held each winter and spring. While participation is not required, transfers students are encouraged to participate in this program in order to get further information about their academic programs and the Rowan University community. Transfer students can direct any requests for specific information to the Office of the Vice President for Student Affairs located in Savitz.

## Counseling and Psychological Services Center

**Z. Benjamin Blanding, Assistant Vice President for Student Development/Director**

**Savitz Hall**

**(856) 256-4222**

**blanding@rowan.edu**

In the Counseling and Psychological Services Center, professionally trained counselors provide confidential personal counseling to students. The Center provides individual and group counseling, workshops and presentations, mediation and student leadership training. Some common concerns for college students include: academic/personal skill building, sexual assault and other trauma, substance use and abuse, eating and body image issues, stress, anxiety, isolation, interpersonal difficulties as well as situations involving depression, grief and loss.

The Center also provides exit interviews to assist students in their decision making regarding leaves of absence from the University.

The University's Critical Incident Response Team is coordinated through the Center and each of the staff is a member of the team. This university-wide group responds to crises by meeting with various groups on campus in order to provide time to process responses to a crisis.

## **Health Services Center**

**Nancy M.H. Pontes, Director**

**Linden Hall**

**(856) 256-4333**

**Fax (856) 256-4427**

Rowan University Student Health Center provides nursing and medical services for students. The Student Health Center supplements the complete health services provided by family physicians. It serves students for short-term illnesses and emergencies.

Although the Health Center is usually able to treat students with acute needs, students who require long-term bed care, special diagnostic and therapeutic procedures, or individual nursing care are admitted to nearby hospitals. Some students return home for treatment. The Student Health Center provides the services of qualified physicians during scheduled hours Monday through Friday and on call basis.

The Health Center does not cover the cost of any prescription drugs not available in the SHC; the cost of diagnostic laboratory procedures; or charges from physicians, providers, or other referrals. The Student Health Center, located in Linden Hall, serves faculty and staff on an emergency basis only. Hours will be posted.

## **International Student Services**

**Craig Katz, Director of International Student Services**

**Savitz Hall**

**(856) 256-4239**

**katz@rowan.edu**

Office of International Student Services is responsible for the recruitment, admission, and support of International Students at Rowan University. We ensure student and institutional compliance with visa requirements and immigration regulations. We also coordinate programs and activities and provide a variety of support services for foreign-born students at the institution. The Office works to foster an environment which supports individual and departmental initiatives in the area of International Education at Rowan University.

# 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 Career & Academic Planning Center and the Student Government Association.

## **Basic Skills Requirement**

Instruction in basic skills provides assistance for entering students needing skill development in reading, mathematics or writing. All freshmen and transfer students with less than 25 credits are required to take placement tests to determine their level of proficiency in mathematics, reading and writing. Instructions for taking the placement examinations are included in Admission materials. Students who are required to enroll in basic skills courses must complete such courses within one year. If the requirement is not satisfied within the specified time, students are recommended for suspension. Basic skills courses do not count toward the minimum number of semester hours needed to complete the student's major and/or degree requirement.

## **Computer Competency Requirement**

All Rowan students must demonstrate computer competency within a specified time frame. There are three ways to fulfill the computer competency requirements: pass the three-credit Computer Literacy course, pass the on-line Computer Competency Exam, or transfer credit from another institution for a computer literacy course.

## **Registration Procedures**

WEB Telephone registration for matriculated students is usually conducted in April and May for the Fall semester, in October and November for the Spring semester and in March for the Summer sessions. Matriculated students may not register for more than 18 s.h. per semester unless approval is obtained from their academic dean, or, for undeclared majors, from the Office of Career & Academic Planning. Payment of tuition and fees for those students who use touch-tone or WEB registration must be made by the date indicated on the course confirmation invoice. Students who do not pay by the date indicated on the invoice will have their confirmations canceled. Students wishing to re-register after such a cancellation may do so at final registration by making selections from courses with seats remaining and paying tuition and fees at that time. WEB Telephone registration course confirmation invoices for students receiving scholarships, VA benefits, graduate assistant stipends and other financial aid must be validated by the Bursar's Office by the date indicated on the invoice. Students are responsible for this validation regardless of who is paying the bill. If such validation has not been completed by the due date on the invoice, the confirmation will be canceled. If students wish to reregister after such a cancellation, they may do so at final registration by making selections from courses with seats remaining and presenting evidence of financial aid at that time.

## **Extended and Final Registration (Matriculated and Non-Matriculated Students)**

**Extended** registration is usually conducted prior to the **beginning** of a semester or summer session. **Final** registration is conducted prior to the first week of a semester or summer session at which time a late registration fee is charged. Payment of tuition and fees for students who register during **Final** registration is due at the time of registration.

## **Matriculated/Non-Matriculated Status**

Matriculated students are those who have formally been admitted to the University through the Admissions Office, have confirmed their intention to enroll in either a certificate granting program or a degree program, and who subsequently register and attend classes. Matriculated students regularly enroll in classes on either a full-time or part-time basis.

Non-matriculated students are those who have not been formally admitted to the University through the Admissions Office. Non-matriculated students may enroll in courses until they have attempted a total of 24 credits. After attempting 24 s.h., students may not enroll for additional credits without fully matriculating or receiving permission of the academic dean. Furthermore, nonmatriculated students may enroll in classes only on a part-time basis (not more than 11.5 credits per semester).

## **Undeclared Major**

Matriculated students may enroll in courses as undeclared until they earn 60 credits. After students have earned 60 credits, they must either declare a major or receive approval from the undeclared major Status Appeals Committee to take additional courses.

## **Deferred Payment Plan**

A deferred payment plan is available to students. For details, students may contact the Bursar's Office.

## **Course Withdrawal System**

Registration in a given Rowan University course implies the student's obligation to complete its requirements. Provisions for withdrawal are made for special circumstances. Except in extreme circumstances when the department chair and the dean of a particular college allow, students are not permitted to withdraw from the same course more than two (2) times.

The notation of W, withdrawal, is not a grade. The notation of W is made by the Registrar on the basis of information supplied by the student. Students should follow the regulations stated below in order to receive the notation of W.

- a. To drop a course during the drop/add period only, students must secure a Drop/Add Form from the Registrar's Office. When students withdraw from a course during the drop/add period, neither the course nor the drop will be recorded on the transcript.
- b. To withdraw from a course between the drop/add period and mid-semester, students must secure a Withdrawal from Course Request Form A from the Registrar's Office. The reason for the request may be stated on the form and must be signed by both the student and the course professor, who must note the student's last date of attendance in class on the form. Upon receipt of the signed Withdrawal from Course Request Form A, the Registrar's Office will enter a W on the official transcript.

- c. To withdraw after mid-semester, the same process as stated in item b above will prevail, except that the reason(s) for the request must be stated and approval must be obtained from the professor and respective department chairperson. If the approval is granted, the professor will indicate that the student is withdrawing with a passing grade (WP) or withdrawing with a failing grade (WF). The professor will also note the student's last date of attendance in class on the form. Upon receipt of the properly approved form, the Registrar's Office will enter a WP or WF on the official transcript.
- d. Withdrawals during the last four weeks of the semester are considered exceptional and may occur only with the approval of the professor, department chairperson and dean and only for good and sufficient reasons beyond the control of the student. (WP/WF remains in effect.)

## **Curricular Definitions**

### **Major**

A major is a grouping of selected, related and approved courses that leads to a baccalaureate degree. The major has stated goals, requirements and a suggested sequence of courses.

The University has established a set of policies and procedures for admission, continuance, and dismissal from an academic major. For more information on these policies and procedures, contact the Office of the Vice President for Student Affairs.

### **Minor**

A minor is a grouping of selected, related and approved courses that originate under a major degree program. The minor has stated goals and a suggested distribution and a sequence of courses to include lower and upper level. Minors shall consist of a minimum of eighteen (18) semester hours in a specified field other than one's major.

### **Concentration**

A concentration may generally be defined in two ways. It is a coordinated grouping of courses in disciplines that do not have major programs. It is an interdisciplinary or multi-disciplinary grouping of courses focused on common subject matter. Concentrations shall have stated goals and a suggested distribution and sequence of courses.

Concentrations shall consist of a minimum of eighteen (18) semester hours of credit and a maximum of twenty-four (24) semester hours. These courses do not constitute a major and are not required for graduation in any degree program.

### **Specialization**

A specialization is a group of courses within an approved major degree program that are focused in a cohesive area of that major program. Specializations shall consist of a minimum of twelve (12) semester hours.

### **Full-Time Status**

A full-time undergraduate student is one who has enrolled for a minimum of twelve (12) credit hours per semester. A full-time graduate student is one who has enrolled for a minimum of nine (9) credit hours per semester.

## Grading System

The following are used to evaluate students' performances in courses:

*letter grade point value*

A	4.0	Excellent
A-	3.7	
B+	3.3	
B	3.0	Good
B-	2.7	
C+	2.3	
C	2.0	Fair
C-	1.7	
D+	1.3	
D	1.0	
D-	0.7	
F	0.0	Failure
P		Pass
NC		No Credit
IN		Incomplete

The following notations are made by the registrar:

W	Withdrawal
NR	Not Recorded

The NR notation will be inserted by the registrar when instructors do not record grades for students in courses in which these students are registered. This notation may be changed later to a regular letter grade by instructors using the Change of Grade procedure. The symbol could be changed to a W if students present sufficient evidence of withdrawal from the course involved.

The use of P/NC (Pass/No Credit) in selected courses has been approved by the University Senate. A list of approved P/NC courses is published each semester in the Master Schedule of Classes. Students must accept the responsibility of reviewing that listing. P/NC grades will not contribute to the computation of cumulative grade point averages or the designation of graduation honors. Descriptive reports will accompany P/NC grades only at students' written requests and at the option of the instructor. If students do not request an option for P/NC before the end of the last day of the second week of class, they will be graded on the A-F scale. Transfer and first-year students registering during or after September 1995 will be permitted to take up to 10 percent of the credits earned as P/NC.

Students engaged in exchange programs are graded on the P/NC basis.

The interim grade of IN (incomplete) may be assigned by an instructor under certain circumstances. This grade must be removed before the end of the following academic semester. If students believe that circumstances warrant an extension, they may request the instructor, in writing, for such an extension. If approved, the instructor will renew the incomplete in the Registrar's Office when grades are due. Failure to remove the incomplete grade within the prescribed time will automatically change the IN to an F.

## Change of Grade Policy

Grades are subject to change under the following conditions:

**INCOMPLETES:** A grade of incomplete (IN) may be changed to a letter grade.

**ERRORS:** A grade calculated or recorded erroneously may be changed to the grade actually earned.

**DISPUTES:** A disputed grade may be changed if the student appeals it successfully. A disputed grade differs from a grade recorded in error in that disagreement over evaluation or application of criteria rather than miscalculation or clerical mistake is involved.

The policies for these three conditions differ substantially. Students are advised to read each policy carefully, paying particular attention to the respective time lines.

A request for change of grade is appropriate only when an error has been made by the professor in calculating or recording a student's grade or when an "Incomplete" has turned into an "F" and the student has met all requirements, for the course. In cases of a need to change a final grade assigned for a course, the time limit for confirmed contact of the professor who awarded the grade is twenty (20) business days, not including summer, into the semester following the one in which the grade was recorded. If the professor is unavailable or fails to respond by the 30<sup>th</sup> business day of the semester, students have an additional ten (10) business days to contact the department chair. Where the department chair and the instructor are one and the same, twenty (20) business days suffice before the student can move on to the next step. Students should retain evidence of their attempts to reach either party, in extraordinary, rare, and compelling circumstances beyond the control of the student, these limits may be extended, and changes may be made only with the written approval of the course instructor, when available, the department chair, and the dean.

A change of grade is not a substitute for an "Incomplete." If a student has work missing at the end of a semester – exams, papers, assignments to be written or rewritten – an "Incomplete" may be assigned if circumstances warrant. It is not appropriate to use change of grade to alter P/NC to A-F grade or vice versa after the completion of the semester unless an error has been made. In designated courses a student may request a P/NC option before the end of the drop-add period during the semester in which the course is taken as noted in university policy. Students who do not declare an option for P/NC before the end of the drop/add period are to be graded on the A-F scale.

## Process for Resolving Disputed Grades

It is the responsibility of the classroom instructor to evaluate each student's work and to assign a grade which is a fair and valid measure of the student's achievement in the course. In the event of a dispute over an assigned grade, the student will document in writing the rationale for the grade dispute. The student must provide a copy of his or her perception of the dispute to the instructor and the department chair. It will then become part of the permanent record concerning the dispute. This document must be signed and the date of the transmittal to the instructor and the department chair noted on the document.

The time limit for initial confirmed contact of the professor who awarded the grade is twenty (20) business days, not including summer, into the semester following the one in which the grade was recorded. If the professor is unavailable or fails to respond by the 30th business day of the semester, students have an additional ten (10) business days to contact the department chair. Where the department chair and the instructor are one and the same, twenty (20) business days suffice before the student can move on to the next step.

### 1. Department Level:

- a) The student and the instructor will meet to attempt resolution of the disputed grade. If the instructor is no longer accessible for any reason (e.g., prolonged illness, no longer at Rowan), the student may continue the process as noted in this policy by first meeting with the department chair (see 1 b),

## POLICIES AND PROCEDURES

- b) If the matter is not resolved, the student and the instructor will then meet with the department chair, who will act as a facilitator, to determine if resolution is possible. If the dispute cannot be resolved informally, faculty will continue to be available to assist in the resolution of the dispute.
- 2. College Level  
If the issue is not resolved at the department level, within ten (10) business days from the time the department chair is informed of the dispute, the student shall schedule a meeting with the appropriate academic dean within five (5) business days of the departmental decision and will provide, in writing, the rationale for the grade dispute. The academic dean will attempt to effect a reconciliation between the two parties within ten (10) business days of receiving the student's written rationale for the grade dispute. Pertinent documentation provided by the instructor and the student shall form the basis for discussion at this stage.
- 3. Grade Grievance Committee Level  
If the matter is still unresolved, ten (10) business days after the meeting with the academic dean, the student may pursue the matter with the associate provost for academic affairs. The associate provost for academic affairs will provide the Grievance Committee with the student's written grievance to determine whether a formal hearing is warranted. If the Grievance Committee determines a formal hearing is warranted, a date and time will be set for the hearing. The Grade Grievance Committee shall, at the conclusion of the hearing, have prepared a written recommendation to the provost. The recommendation shall be submitted within four working days after the hearing.
- 4. Provost Level  
Within ten (10) working days of receiving the recommendation, the provost will take action and shall notify both parties in the grievance of the decision and action taken. This action is final.

The Grievance Committee shall be composed of two faculty members appointed by the Senate, two students appointed by the SGA, and two administrators appointed by the University president or his/her designee. A chairperson shall be elected from and by the membership and shall have the right to vote. The associate provost for academic affairs shall serve as an ex-officio member of the Committee without vote. A majority of the Committee membership must be present for all meetings of the committee.

Every effort will be made by the associate provost for academic affairs to schedule a grade grievance hearing at a time that is mutually convenient to the instructor and the student. This may, however, not always be possible. The associate provost for academic affairs will set the schedule for the meeting after careful consideration of the personal schedules of the parties involved. A hearing will not be set for a time when either the instructor or the student has a class at Rowan scheduled. One continuance is permitted if unforeseen events make one or the other party's attendance impossible. Thereafter, a new date for the hearing will be set, and the committee will be convened despite the absence of one or both of the parties to the dispute.

If any committee member has a direct personal or professional relationship with any individual(s) involved in a particular case, that committee member may disqualify him/herself from serving on the committee while the case is being heard. Further, if a charge of bias is raised by an individual, the contested committee member may disqualify him/herself from committee deliberations. Failing voluntary action in either situation, the committee itself must reach a decision as to the continuance of the individual so questioned. If a member is disqualified, another individual from the same constituency shall be appointed to serve in his/her place.

## Repeating a Course

In the event that a student must or voluntarily chooses to repeat a course, the grade received for the repeated course will constitute the final grade for that subject for cumulative G.P.A. purposes whether the grade is higher or lower than the grade received in the original course. The original grade, although not counted in the cumulative G.P.A., remains on the student's transcript. Herein, the University stipulates that the same course may not be taken more than twice including withdrawals. However, except for general education courses, further restrictions may be determined by the individual departments/colleges, only to meet standards recommended by accrediting bodies, statutory regulations, and/or professional societies. Appeals may be made through the normal appeals process.

## Viewing Final Exams and Papers

Faculty members have the responsibility of making final exams and papers accessible to students for viewing for a period of one semester after a final grade has been issued, or when an Incomplete becomes a final grade.

## Academic Dismissal/ Academic Warning

**Academic Dismissal** occurs when students make unsatisfactory academic progress. Such a dismissal will generally, but not always, take place at the end of the academic year. Students so dismissed cannot register in either the summer or academic year terms, as a full or part-time student, nor as a non-matriculated student. However, students may register in courses offered in the basic skills module. Students who register for courses other than those in the basic skills module will be withdrawn by the Registrar. Students who have been academically dismissed may apply for readmission through the Admissions Office after one academic year. Students who have been academically dismissed may not participate in any University or student activities.

Students whose cumulative grade point average falls below certain prescribed standards are dismissed from the University. Such dismissal occurs if, after enrolling for:

- 24 credits, the cumulative grade point average is **below 1.2**
- 58 credits, the cumulative grade point average is **below 1.5**
- 90 credits, the cumulative grade point average is **below 1.8**

Students must meet the basic skills requirements within one year of admission to the University. Failure to do so may lead to dismissal. After attempting twenty-four (24) semester hours or more, students whose cumulative number of semester hour credits of withdrawal exceed twenty-five (25) percent of the semester hours attempted may be dismissed from the University. (This is exclusive of medical withdrawals.)

**Academic Warning** occurs when student's academic records do not warrant dismissal but when there is concern for their academic progress. Normally students may not continue at the University on academic warning for more than one academic year. Students are placed on academic warning if, after enrolling for:

- 24 credits, the cumulative grade point average is at least **1.2 but below 1.6**
- 58 credits, the cumulative grade point average is at least **1.5 but below 1.8**
- 90 credits, the cumulative grade point average is at least **1.8 but below 2.0**

Students on academic warning are not permitted to participate in any organization sponsored by the University or chartered by the Student Government Association, unless such participation is a requirement of a University academic program. The dean of students will notify coaches, advisors, directors and sponsors of activities of those students who have been placed on an academic warning status.

Students placed on academic warning status have one academic year to raise their cumulative averages to the G.P.A. outlined in the above criteria. Correspondence relating to academic dismissal and academic warning is sent to the students' addresses of record. Students are responsible for ensuring that their addresses of record are current and accurate.

The Rowan Senate Academic Policies and Procedures Committee, as part of the governance mechanism of the University, is responsible for recommending academic policies. Using standards set by this committee, the Deans' Review Committees decide whether students should continue their studies, be placed on academic warning or be dismissed from the University.

Students may appeal a dismissal or an academic warning decision in writing within two weeks of the date of the notice of academic warning or dismissal. The written appeals should be submitted to the appropriate Dean's Review Committee. The academic deans review appeals of students whose declared major is in their colleges. The director of academic support programs reviews appeals of students who have not declared a major. Students who fail to achieve minimum basic skills requirements within the prescribed time frame may be subject to academic warning or dismissal. The director of the Academic Success Center must review and clear students who have been academically dismissed for basic skills deficiencies before they may continue at the University. Each review committee shall grant students interviews, if requested, and review all materials submitted by students in support of their appeals. A final determination will be made based on the appeal.

Decisions concerning academic dismissal and warning are made independently of decisions governing financial aid awards. Appeals regarding the discontinuance of financial aid must be made to the director of financial aid.

The University academic dismissal, suspension and probation policy applies equally to all undergraduate students.

### **Official Transcripts**

Transcripts are prepared by the Registrar's Office in accordance with the policies of the American Association of Collegiate Registrars. Transcripts are sent only upon the written request of students. Where Rowan University transcripts show credit hours earned at other institutions, the official transcripts from those institutions have become a part of the student's permanent file in the Registrar's Office. Rowan University does not make copies of other institution's transcripts. It is necessary to obtain such transcripts directly from the institutions concerned. There is a \$5.00 (check or money order, not cash) charge to process a request for each official Rowan University transcript. Disclosure of information contained in students' official transcripts may only be done in accordance with the provisions of the Family Educational Rights and Privacy Act of 1974 (FERPA).

### **Senior Privilege**

Seniors at Rowan University who have at least a 3.0 GPA may request permission from The Graduate School dean to register for one graduate level course per semester. The total number of graduate credits taken shall not exceed 6 semester hours. Students may take a graduate course for application to either an undergraduate or a graduate degree, but may not apply the course to both. For a student to enroll in a graduate course, recommendations are required from both the student's undergraduate program advisor and the chairperson of the department(s) in which the graduate course(s) is/are housed. Furthermore, the final approval for exceptions to the policy must also be obtained from the dean of The Graduate School.

## **Family Educational Rights and Privacy Act of 1974**

In accordance with the provisions of the Family Educational Rights and Privacy Act of 1974, students have the right to inspect and review their own educational records. Records include permanent academic records in the Registrar's Office, student housing records in the Office of Residence Life, placement records and credentials (except those on file prior to January 1, 1975), and disciplinary records in the Office of Judicial Affairs. However, students must personally sign a release permitting the University the right to release copies of such records to outside individuals or agencies. Unless students sign such a release, records can be released only in accordance with the exceptions stipulated in the law. For details concerning this policy, contact the Associate Vice President for Student Affairs/Dean of Students in Savitz Hall.

## **Research Papers—The Term Paper Law**

New Jersey Public Law 1977-C-215 prohibits the preparation for sale and/or subsequent sale of any term paper, thesis, dissertation, essay or other assignment with knowledge that the assignment will be submitted in whole or in part for academic credit. The law provides a \$1,000 fine for any person or firm violating its provisions.

## **Academic Honesty**

The vitality of any academic program is rooted in its integrity. It is essential to Rowan University that the grades awarded to students reflect only their own individual efforts and achievements. Each segment of the academic community, i.e., faculty, students and administration, is responsible for the academic integrity of the University. Academic dishonesty, in any form, will not be tolerated. Students found to have committed an act of academic dishonesty may be subject to failure in the course, suspension from the University, or both.

## **Class Attendance**

Students are expected to be present at each scheduled class for which they are officially registered. Rowan's "community of learners" can be realized only when teachers and learners interact in ways deemed appropriate for any particular class. Because Rowan recognizes diversity in both teaching and learning styles-and even course design and delivery-rules may vary with the learning experience, e.g., online or distance learning courses.

Faculty establish the parameters of a particular learning experience and are expected to maintain the efficiency of the community and to keep accurate attendance records. Faculty are also expected to counsel students who develop a pattern of excessive and unexplained absences, and to request assistance from the dean of students if the pattern of absences continues.

Students who are absent for reasons of illness, death in the family, inclement weather, religious observances, official university activities or for matters of personal conscience should inform each of their instructors, ideally with a written excuse, before the fact or as soon as possible thereafter. Except in cases where classroom experience can not be repeated, faculty may provide these students the opportunity to make up written work, tests or other assignments at the earliest possible convenient time.

In any event, faculty are under no obligation to make special provisions for students absent for reasons other than those listed above.

Faculty may establish additional attendance criteria which are consistent with the above paragraphs. In learning communities, where attendance is critical to the functioning of the group, the rationale and justification for additional attendance requirements must be part of the syllabus provided for students prior to the end of the drop/add period.

## Audit Policy

Students who wish to attend classes in a particular course and not receive credit may do so by registering in person during final registration or Drop/Add at the Office of the Registrar. Auditors may choose whether or not to do the normally required course work; likewise, instructors may choose whether or not to formally evaluate auditors work. Auditors receive neither grade nor credit for any course. Courses designated "AU" (audit) on student's transcripts do not count in defining full-time/part-time status, financial aid or veterans benefits, or degree requirements. Students are not permitted to audit private lessons for credit in the Department of Music, internships, student teaching, independent study, or other experiential courses. Tuition for courses taken under the audit designation is established by the University's Board of Trustees.

## Articulation With Area Community Colleges

Rowan University has currently active agreements with the majority of New Jersey's community colleges. These agreements are for graduates of transfer programs who seek to complete a baccalaureate degree. These agreements help ensure that courses taken at a community college meet the sequence requirements of our majors, making transfer easier for students. As with the transfer of any credit from another institution to Rowan University, only the credits are transferable; the grade point average (G.P.A.) relating to the credits is not transferred.

## Graduation Requirements

Students must complete an academic major program to the satisfaction of the department administering the major. Students must successfully complete a minimum of 120 semester hours with a minimum cumulative grade point average of 2.00 (Some programs require more than 120 semester hours or a higher G.P.A. See program advisors for specific requirements).

To be eligible for graduation, transfer and native first-year students will be permitted to take up to 10% of the credits earned here Pass/No Credit. Any exception to this regulation requires the prior written consent of the academic major program advisor and the respective academic dean.

A minimum of 30 credits of student's total degree program requirements must be taken in courses offered by Rowan University. This amount may be achieved through any combination of day, evening, on-campus and off-campus offerings and does not have to be the last 30 credits completed. All students planning to complete degree or teacher certification requirements at the end of the semester must complete the appropriate application at the Registrar's Office during the beginning of that semester. Diplomas will be available approximately eight weeks after the end of the term. The deadlines for filing are: October 15 for Fall Semester, November 15 for Spring Semester and July 15 for Summer Session.

The University reserves the right to modify its requirements for graduation, continued registration or appropriate progress towards the degree as directed by the Commission on Higher Education, the Presidents Council, or by the board of trustees of Rowan University. These modifications may include, but are not limited to, requirements for the demonstration of competence in college level basic skills, satisfactory mastery of subject matter in a major field or the acquisition of a broadly based liberal arts education.

## Academic Honors

Outstanding academic achievement is recognized when students have grade point averages of 3.450 or better. Students who achieve this average, based on 12 semester hours of letter grades, for any one semester will be placed on the Dean's List.

Rowan University recognizes exceptional academic achievement at graduation. Qualifications for academic honors at Commencement shall be based upon the student's academic average at the end of the first term of the senior year. The average shall be based upon a minimum of 36 semester hours of coursework completed at Rowan University at the time of computation. Honors are awarded according to the following schedule:

- 3.450-3.649 Cum Laude
- 3.650-3.849 Magna Cum Laude
- 3.850-4.000 Summa Cum Laude

Student's transcripts shall indicate academic honors based upon the cumulative grade point average achieved at the end of the senior year. Honors will be recalculated for grade changes that have been approved within 90 days after the end of the student's final semester.

## Second Baccalaureate Degree

The University shall appropriately and fully recognize the completion of degree and major program requirements according to college. Since different degrees, such as the B.A. and the B.S., are distinct educational packages, or frameworks, the recognition shall also be kept distinct. If a student has fully completed two major programs, this should be recognized. However, if both programs are within the same type of bachelor's degree framework (B.A., B.S., B.F.A., etc.), then only one bachelor's degree shall be awarded and a double major recorded. Education dual majors shall be considered a double major for a B.A. unless the requirements for a second degree in a different bachelor's framework are also fully met. To fully meet the requirements would include meeting all general education requirements for each degree. If the two programs are not in the same degree framework, then a second bachelor's degree shall be awarded only if the student meets the following requirements:

1. Regular admission to and matriculation in both major programs.
2. Full completion of all requirements in both major programs and certification by both departments, or program coordinators, involved.

In addition to the above, which governs the award of concurrent bachelor's degrees, the University also has a policy for the award of successive bachelor's degrees. For more information, students are encouraged to contact the Registrar's Office.

## Stop Out and Leave of Absence Policy

Any student who does not register for two consecutive regular academic semesters will lose matriculated status at the end of the drop-add period of the third semester. Such students must then apply for readmission to the University through the Admissions Office and to a major program, and meet any new program requirements which have been officially instituted. Registration during a summer session will count toward registration; but failure to register during a summer session does not count as a third semester.

A student may apply for an Official Leave of Absence through the Rowan University Counseling Center. Students may apply for leaves for a period of up to four consecutive regular academic semesters. Students who fail to register for a fifth consecutive regular academic semester will lose their matriculated status. Students who stop attending without notifying the University may apply for leaves of absence before fail-

ing to register for a third consecutive regular academic semester. If a leave of absence is granted, students can maintain matriculated status. However, the total number of consecutive semesters missed (the stop out plus extension with the leave of absence) shall not exceed four.

## **Withdrawal or Leave of Absence From University**

If for some reason students decide to take a leave of absence or withdraw from the University, the following steps should be taken:

1. Obtain from the Counseling Center an official Leave of Absence or Withdrawal Form. It is the responsibility of the student to take this form to each office designated to complete the leave of absence or withdrawal procedure.
2. If, for reasons of illness, the student cannot return to the campus, the student should write a letter stating whether he/she wishes a leave of absence or withdrawal to Director, Counseling Center, Rowan University, Glassboro, New Jersey 08028

In writing such letters, students should give their full name, home address, social security number, effective date of absence or withdrawal and reason(s) for such action.

## **Course Credit by Examination and Challenge Examinations**

Credit by Examination is credit granted for satisfying the requirements of a course by written or oral examination, without the student having been formally enrolled for the course. Rowan University's policy for credit by examination serves both traditional and non-traditional students. Policy is therefore established in three areas:

1. Credit by examination for life experience using established external processes and agencies,
2. Credit by examination for life experience using campus based assessment processes, and
3. Challenge exams to demonstrate proficiency in specific courses now offered by the University.

Students may wish to demonstrate sufficient proficiency by a challenge examination which exempts the student from further required coursework and/or credit hours only in the basic competency area of the curriculum. Successful challenge examinations may be used to meet general education distribution requirements. However, challenge examination does not reduce the total credit hours required for graduation from the University.

## **Credit by Examination for Life Experience, External Examination**

The University recognizes tests by external assessment agencies, e.g., College Level Examination Placement (CLEP) and Advanced Placement. Assignment of credit based upon external evaluation is considered as transfer credit. Credit assessments made by Thomas Edison College are accepted as transfer credit. No more than 30 hours total semester credit may be attained for life experience as determined by external assessment, other than from an accredited university or college, may count toward the total credit requirement for graduation from Rowan University. Courses taken in the armed services and recommended for credit by the American Council on Education have been accepted. When these courses are applied to meet the major requirements, the respective major department/ program advisor and dean must approve.

## **Credit by Examination for Life Experience, Internal Evaluation**

An internal assessment to award credit by examination is done only if there are not approved external agencies or processes available to the student and an internal process is requested by a particular academic department or division. Assessment processes are developed by the particular department or division. No more than 18 credits may be awarded in lieu of coursework by internal departmental assessment.

Successful applicants receive a grade of pass and credit will be applied to the total credit required for graduation.

## **Challenge Examination**

Challenge examinations will be limited to University-wide basic competency courses or the introductory course(s) in a major sequence. A student meeting the minimum level of proficiency shall be exempt from the challenged course. No credit will be awarded.

Each department shall determine which courses may properly be challenged by students claiming proficiency.

# ACADEMIC AFFAIRS

## Academic Affairs

**Christy L. Faison, Interim Provost**

**Bole Hall**

**(856) 256-4108**

**faison@rowan.edu**

**Patricia Mosto, Interim Associate Provost for Academic Affairs**

**(856) 256-4012**

**mosto@rowan.edu**

**Robert Zazzali, Associate Provost for Faculty Affairs**

**(856) 256-4110**

**zazzali@rowan.edu**

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, the Library, technology delivery and planning and the Rowan University Camden Campus. The Deans of the Colleges of Business, Communication, Education, Engineering, Fine & Performing Arts, Liberal Arts & Sciences and the Graduate School, Library and Rowan at Camden, the associate provost for research and the associate provost for information resources report to the Provost. The Provost reports directly to the President and is second in the chain of command at the University.

## Rowan University at Camden

**Eric Clark, Dean**

**Tyrone W. McCombs, Associate Dean**

**Camden Campus**

**(856) 756-5400**

**clarke@rowan.edu**

**mccombst@rowan.edu**

Rowan University at Camden offers programs and services convenient for the residents of the City of Camden and surrounding counties. In a shared facility with Camden County College, Rowan University at Camden is located in the University District of Camden, New Jersey. Students attending Rowan at Camden can take general education courses and complete a full degree program in one of the following majors: Sociology, Elementary Education, and Law and Justice Studies.

The English as a Second Language (ESL) Program at Rowan at Camden is very unique. It provides non-native speakers of the English language with the opportunity to study English, improve their language and academic skills and take Rowan courses at the same time.

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.

The courses at Rowan at Camden are offered in the day and in the evening for a diverse student body. The flexible course scheduling is designed for individuals who may work. In addition, Rowan at Camden also has a childcare facility for those students who may have family responsibilities. Rowan University at Camden also offers cross registration with Rutgers University-Camden and Camden County College-Camden. In addition, Rowan at Camden offers a limited number of support services in collaboration with the City institutions including the Library and recreation center.

As of fall 2003, Rowan at Camden also shares a new bookstore with the other two City institutions. The new bookstore which is named The University District Bookstore is located on the corner of Broadway and Cooper Street directly across from the Rowan at Camden facility. The bookstore carries all books for courses offered at Rowan at Camden.

## Campbell Library

**Gregory Potter, Interim Dean**

**Campbell Library**

**(856) 256-4800**

**potter@rowan.edu**

The Keith and Shirley Campbell Library, a 118,000 sq. ft. facility, houses more than 350,000 books, documents, multimedia materials, newspapers, and special collections. In addition, the library subscribes to an extensive number of online periodical and special information databases in support of the diverse academic programs and majors offered by the University. To provide needed complementary resources, print subscriptions are also available for key academic journals, with extensive backruns in microfiche, microfilm, and bound volumes.

The Library provides two major special collections, one of which is a depository collection of selected U.S. federal and State of New Jersey documents, available in both print and microform. The other is named in memory of Frank Stewart, a prominent New Jersey industrialist who donated an extensive and valuable collection of New Jersey historical documents and artifacts.

Campbell library databases are accessible online 24 hours daily. Reference librarians are available during regular library hours to assist patrons in using both the print and online resources. Specialized data-

bases, such as the multi-million volume OCLC bibliographic database, can be accessed with librarian assistance. Two electronic reference rooms in the library are available during regular library hours. Patrons with laptop computers can be accommodated in the main building.

The library provides orientations, tours, and workshops throughout the academic year, including the summer sessions. A 30-workstation lab is available for "hands on" library instruction. Located in the Wilson Fine and Performing Arts Building is the Music Library, which houses a large collection of scores, CDs, recordings, and other related materials. Listening equipment and database workstations are available.

## **Research**

**S. Jay. Kuder, Associate Provost**

**Memorial Hall**

**856-256-4053**

**kuder@rowan.edu**

The Office of the Associate Provost for Research oversees research activities at the university, including the Office of Government Grants and Sponsored Projects and compliance activities such as the Institutional Review Board for Human Subject Research (IRB) and the Institution Animal Care and Use Committee (IACUC).

## **Information Resources**

**Anthony Mordosky, Associate Provost**

**Memorial Hall**

**(856) 256-4743**

**mordosky@rowan.edu**

The Division of Information Resources provides leadership, planning, coordination, and support services for the information technology infrastructure of the university and its satellite campus. Information Resources is committed to providing students, faculty, and staff with universal access to library and information technology resources that support and enhance academic and administrative programs and promote student-centeredness, excellence in instructional practice, quality management, and efficiency and integrity of operations. This division consists of the Office of the Associate Provost for Information Resources, Instructional Technology, Enterprise Information Services, Network and System Services Units, and the Office of Web Development.

## **Undergraduate Programs**

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

Rowan University's policy provides that students who transfer with the associate in arts degree from any New Jersey county college who enroll in a bachelor of arts degree program at Rowan will normally have 45 s.h. of general education toward general education requirements or 30 s.h. for students with an associate in science degree enrolling in a bachelor of science degree program at Rowan. 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.

## Graduate School

**S. Jay Kuder, Dean  
Memorial Hall  
(856) 256-4053  
kuder@rowan.edu**

The Graduate School mission is to provide programmatic leadership, coordination and administrative support for quality graduate programs and experiences at Rowan consistent with national, state and regional educational needs. Through graduate degree programs at the master's, specialist, and doctoral levels and through graduate certificate programs and graduate courses, The Graduate School expands academic opportunities for students to meet workplace, professional and personal desires for lifelong learning. Led by the Graduate Council, graduate program advisors and faculty and the Dean and staff of The Graduate School, the Rowan graduate experience is an integral component of the overall University mission to provide an exceptional environment for achievement and fulfillment.

## General Education

General Education is designed to fulfill the aim of a liberal education: breadth of knowledge and balance of judgment. Courses in General Education are designed to create an interest in cultural and intellectual activities that will last throughout life. The General Education Banks all have specific goals. These goals for each individual bank are as follows:

### 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 give an oral presentation that is well reasoned ordered, correct and appropriate for the intended audience.
3. Students will develop the ability to research and properly reference the work of others.

### Mathematics and Science 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, 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.

### Artistic and Creative Experiences Bank Goals

1. Students will 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.
2. Students will demonstrate a knowledge and understanding of the major artistic figures and their contributions to the field of study that is the focus of the course.
3. Students will develop the ability to access and use arts resources that will enable continuing growth and development of knowledge gained through the experience of exposure to the arts.

## Non-Program Electives Bank Goals

1. To 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. To enhance the major degree program and better prepare to meet future professional and life objectives.

## First Year Experience Bank Goals

1. Strengthen writing and critical thinking skills through their application to a specific course content.
2. Nurture library research skills within a course context
3. Reinforce the value of cooperative learning.
4. Strengthen classroom management skills.
5. Explore and more clearly define educational and professional goals.

Students need to understand that a well-rounded education is a goal in itself and that there are important aspects of this education that the university as a whole wants to emphasize. These aspects include a thorough grounding in written and oral communication; an exposure to university level science, mathematics, and literature; and an introduction to art and other cultures and locales.

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.
5. To help first year students make a smooth academic transition to the university community, serious scholarship, and the life of the mind.
6. 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.
7. 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.

Because 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. Consistent with this principle, students should take at least two disciplines in any bank requiring two or more courses.

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

- I. All students must take the following courses under the communication bank:
  - a. College Composition I or Integrated C.C.
  - b. College Composition II
  - c. Public Speaking (or its equivalent)

- II. All students must take at least one course in general education, or in their major, that is labeled as Writing Intensive (WI). The student has to have completed College Composition I and II before enrolling in a course designated as WI. This course must be taken at Rowan University.
- III. All students must take at least one mathematics course from the list of mathematics courses under Science and Mathematics.
- IV. All students must take at least one approved course that includes an in-class laboratory experience under Science and Mathematics. Transfer courses must include the in-class lab experience. Students may not test out of the lab experience (CLEP).
- V. All freshman must take a course designated as Rowan Seminar (RS). RS may be a course required in the major, chosen as part of Gen. Ed., or part of a student's choice for free electives. Therefore, depending on where or how it is taken, RS may or may not count towards the total Gen. Ed. Semester hours.
- VI. All students must take at least one course labeled as Multicultural/Global Studies (M/G). This course need not be a general education course or taken as part of the Gen. Ed. Model.
- VII. All students must take at least one broad based literature course that is labeled as Literature (LIT). This course need not be a Gen. Ed. Course or taken as part of the Gen. Ed. Model.
- VIII. 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
- IX. Students must demonstrate competency by passing a computer competency exam or an appropriate computer competency course by the end of their freshman year. Transfer students must also fulfill this computer competency.

## **General Education Credit Hour Distribution by Bank**

All of the semester hours listed below are considered minimum requirements.

### **General Education Areas**

Communication	9
Science and Mathematics	7
Social and Behavioral Sciences	6
History, Humanities &Language	6
Artistic and Creative Experience	3
Non-Program Course	6

**Minimum Total\*** **42**

\* Individual programs may expand requirements in the various General Education Banks

Unless noted, all courses are 3 sh

^ All of these courses have prerequisites

(H) Honors Program

(WI) Writing Intensive

(M/G) Multicultural/Global

(Lab) Laboratory Science

(LIT) Broad-based literature course

**APPROVED GENERAL EDUCATION COURSES****Communication (Written/Spoken)***Communication Studies*

^ 1506.202 Public Speaking

*Writing Arts*

1501.111 College Composition I

^ 1501.112 College Composition II

**Science and Mathematics***Biological Sciences*

- 0401.100 Biology I (Lab 4 sh)
- ^ 0401.101 Biology II (Lab 4 sh)
- 0401.110 Human Biology
- 0401.112 Biology: Environ. Focus (Lab 4 sh)
- 0401.113 Biology: Human Focus (Lab 4 sh)
- 0401.115 General Biology: Plants & People (Lab 4 sh)
- 0410.210 Human Anatomy & Physiology I (Lab 4 sh)
- 0420.100 Introduction to Natural Resources
- 0420.150 Human Ecology: Evolution Approach M/G (Lab 4 sh)

*Chemistry*

- 1905.102 Chemistry of Everyday Life (Lab 4 sh)
- 1906.100 Chemistry I (Lab 4 sh)
- ^ 1906.101 Chemistry II (Lab 4 sh)
- ^ 1906.105 Adv. College Chemistry I (Lab 4 sh)
- ^ 1906.106 Adv. College Chemistry II (Lab 4 sh)

*Computer Science*

- 0701.102 Introduction to Programming
- 0701.104 Introduction to Scientific Programming
- ^ 0701.200 Computing Environments
- 0704.103 Computer Science & Programming
- ^ 0704.110 Intro to Programming Using Robots

*Geography/Anthropology*

- 2206.101 Physical Geography
- 2206.103 Geology I (Lab 4 sh)
- 2206.110 Investigations in Physical Geography (Lab 4 sh)

*Health and Exercise Science*

- 1306.200 Basic Nutrition

*Mathematics*

- 1701.115 Contemporary Mathematics
- 1701.122 Precalculus Mathematics (4 sh)
- 1701.123 College Algebra
- ^ 1701.130 Calculus I (4 sh)
- 1701.131 Calculus II (4 sh)
- 1701.201 Structures of Mathematics

- 1701.202 Introduction to Geometry
- 1702.100 Elementary Statistics
- 1702.260 Statistics I
- 1703.125 Calculus: Techniques & Applications
- 1703.150 Discrete Mathematics
- 1703.160 Discrete Structures
- 4905.180 Honors Mathematics (H)

### *Physics and Astronomy*

- 1901.110 Principles of Physical Science
- 1902.120 Selected Topics In Physics
- 1902.140 Physics of Current Technologies (Lab 4 sh)
- 1902.150 Physics of Everyday Life (Lab 4 sh)
- 1902.175 Physics of Sound & Music (Lab 4 sh)
- ^ 1902.200-201 Physics with Calculus I, II (Lab 4 sh)
- ^ 1902.202-203 Physics non-Calculus I, II (Lab 4 sh)
- 1911.120 Introduction to Astronomy (Lab 4 sh)
- ^ 1911.231 M/T in Modern Astronomy (Lab 4 sh)
- ^ 1911.241 Astronomy & Astrophysics (Lab 4 sh)
- 1911.221 Exploration of the Solar System
- 1913.101 Meteorology
- 1917.110 Principles of Earth Science

### *Psychology*

- 2001.104 Introduction to Psychology: Brain, Mind and Behavior

### *Interdisciplinary*

- 4901.132 Biology, History & the Fate Human Societies (RS)
- 4901.138 Issues in Sustainable Development (RS)
- 4901.140 Diverse Approaches to Environmental Literature (RS)
- 4901.144 Human Ecology: An Evolutionary Approach (RS)
- 4901.148 Environmental Ethics: Through the Lens of Diversity (RS)
- 4905.185 Honors Natural Sciences (H)
- 4901.200 Issues in Women's Health

## **Social and Behavioral Sciences**

### *Communication*

- ^ 0601.203 Mass Media and Influence
- ^ 0601.205 Mass Media and Influence (WI)
- 0601.220 Intro to Communication Studies
- ^ 0601.300 Communication Theory
- ^ 0699.462 Public Opinion
- 1506.205 Persuasion & Social Influence
- 1506.206 Interpersonal Communication

### *Economics*

- ^ 2204.310 Global Economics
- 2204.100 American Economic System
- 2204.101 Introduction to Economics-Macro
- 2204.102 Introduction to Economics-Micro

*Geography and Anthropology*

- 2202.201 Physical Anthropology
- 2202.202 Cultural Anthropology (M/G)
- 2202.203 Introduction to Archaeology (M/G)
- 2202.210 Natives of South America (M/G)
- ^ 2202.215 Medical Anthropology (M/G)
- 2202.310 Indians of North America (M/G)
- ^ 2202.312 Anthropological Perspectives in Physical Growth & Develop (M/G)
- 2202.350 Comparative Cultures (M/G)
- 2206.102 Cultural Geography (M/G)
- 2206.111 World Regional Geography (M/G)
- 2206.201 Geography of U.S. and Canada
- 0420.150 Human Ecology: Evolution Approach (M/G)

*Health and Exercise Science*

- 1305.302 Contemporary American Family
- 0837.210 Consumer Health Decisions

*Law and Justice*

- 2105.275 Survey of Criminal Justice
- 2105.315 Criminal Justice/Social Conflict
- 2105.330 Problems in World Justice

*Political Science*

- 2207.100 Intro to Government Politics (M/G)
- 2207.110 American Government
- ^ 2207.230 Comparative Political Systems (M/G)
- 2207.231 Contemporary World Problems (M/G)
- ^ 2207.310 American Constitutional Law

*Psychology*

- 2001.100 Introduction to Psychology: Personal, Social, & Emotional Interactions
- 2009.209 Child Development
- 2009.210 Adolescent Development

*Sociology*

- 2208.120 Introduction to Sociology
- 2208.320 Sociology of the Family (M/G)
- 2208.221 Social Problems
- ^ 2208.230 Sociology of Minority Groups (M/G)
- 2208.269 Self and Society
- ^ 2208.399 Sociology of the Holocaust (M/G. WI)

*Interdisciplinary*

- 4901.102 Intro to the Social Sciences: Self, Society & Power
- 4901.104 Intro to African American Studies (M/G)
- 4901.130 Women in Perspective
- 4901.132 Biology, History & The Fate of Human Societies (RS)
- 4901.138 Issues in Sustainable Development (RS)
- 4901.140 Diverse Approaches to Environmental Lit (RS)

- 4901.142 Three Generations of Family Life: Diversity & Democracy Through Family (RS)
- 4901.146 Identity, Culture, & Democracy: Being An American (RS)
- 4901.154 Emotions in Organizations (RS)
- 4901.158 From Nancy Drew to Lara Croft-Historical & Critical Dimensions of Female Detective Genre (RS)
- 4901.160 Growing Up Female in 20th Century America (RS)
- 4901.162 The Leadership of Ideas (RS)
- 4901.168 What's Wrong With Normal? (RS)
- 4901.170 Law and Order (RS)
- 4901.178 In Search for Democracy: The Fate of Human Societies (RS)
- 4901.200 Issues in Women's Health
- ^ 4901.265 Computers and Society
- ^ 4901.266 Computers and Society (WI)
- 4905.190 Honors Social Sciences (H)

## **History, Humanities and Language**

### *Communication*

- ^ 1505.280 Semantics
- ^ 1505.281 Semantics (WI)
- 1505.380 Linguistics

### *English*

- 1502.105 Masterpieces of Western Literature I (LIT)
- 1502.107 Masterpieces of Western Literature II (LIT)
- 1502.110 Readings in British Literature (LIT)
- 1502.112 Readings in Asian Literature (LIT, M/G)
- 1502.113 Readings in U.S. Literature (LIT)
- 1502.116 Readings in World Literature (LIT, M/G)
- 1502.123 Experiencing Literature (LIT)
- 1502.150 Readings in Shakespeare (LIT)

### *Foreign Languages and Literature*

- 1102.101-102 Elementary French I, II
- ^ 1102.201-211 Intermediate French I, II
- 1103.101-102 Elementary German I, II
- ^ 1103.201-211 Intermediate German I, II
- 1104.101-102 Elementary Italian I, II
- 1105.101-102 Spanish I, II
- ^ 1105.201 Spanish III
- 1105.211 Spanish Reading & Conversation
- ^ 1105.212 Spanish Reading & Composition
- ^ 1105.312 Spanish for Business
- 1106.101-102 Elementary Russian I, II
- 1106.345 Russian Literature in Translation
- 1107.101-102 Elementary Chinese I, II
- 1109.101-102 Elementary Latin I, II
- 1116.101-102 Zulu I, II

*History*

- 2205.100 Western Civilization to 1660
- 2205.101 Western Civilization since 1660
- 2205.120 World History since 1500 (M/G)
- 2205.150 U.S. History to 1865
- 2205.151 U.S. History since 1865
- 2205.376 African-American History to 1865
- 2205.377 African-American History since 1865
- 2205.470 Issues in American History
- 2205.302 Sport in History

*Philosophy*

- 1509.110 Logic of Everyday Reasoning
- 1509.120 Introduction to Philosophy (M/G)
- ^ 1509.121 Introduction to Philosophy^ (M/G, WI)
- 1509.128 Philosophy and Gender (M/G)
- ^ 1509.129 Philosophy and Gender (M/G, WI)
- 1509.130 Introduction to Symbolic Logic
- 1509.220 Survey of Western Philosophy (M/G)
- ^ 1509.221 Survey of Western Philosophy (M/G, WI)
- 1509.226 Philosophy of Mind
- ^ 1509.227 Philosophy of Mind (WI)
- 1509.240 Philosophy and Society (LIT)
- ^ 1509.241 Philosophy and Society (LIT, WI)
- 1509.250 Introduction to Ethics (LIT)
- ^ 1509.251 Introduction to Ethics (LIT, WI)
- 1509.310 Aesthetics
- ^ 1509.311 Aesthetics (WI)
- 1509.368 Philosophy of Science
- ^ 1509.369 Philosophy of Science (WI)
- 1509.392 Contemporary Moral Problems (M/G)
- ^ 1509.393 Contemporary Moral Problems (M/G, WI)

*Political Science*

- 2207.200 Survey of Western Political Theory

*Religion*

- 1510.100 Introduction to Religion
- 1510.110 Introduction to the Bible (LIT)
- 1510.200 Religions of the World (M/G)
- 1510.210 Religion in America (M/G)
- 1510.220 Introduction to Buddhism (M/G)
- 1510.230 Religions of Asia (M/G)

*Secondary Education/Education Foundation*

- 0821.150 History of American Education

*Theatre and Dance*

- 1007.339 History of Theatre to 1700
- 1007.340 History of Theatre from 1700-1956
- 1007.440 Contemporary World Theatre (WI, LIT)

*Interdisciplinary*

- 4901.101 Intro to Humanities
- 4901.120 Biology, History & Human Societies (M/G)
- 4901.132 Biology, History & the Fate Human Societies (RS)
- 4901.134 Readings in American Democracy (RS)
- 4901.136 Gateway to Asia (RS)
- 4901.140 Diverse Approaches to Environmental Literature (RS)
- 4901.144 Human Ecology: An Evolutionary Approach (RS)
- 4901.148 Environmental Ethics: Through the Lens of Diversity(RS)
- 4901.150 Language, Rhetoric and Propaganda: The Weapons of the Cold War (RS)
- 4901.156 Freedom & Artistic Expression-20th Century America (RS)
- 4901.158 From Nancy Drew to Lara Croft-Historical & Critical Dimensions of Female Detective Genre (RS)
- 4901.160 Growing Up Female in 20th Century America (RS)
- 4901.164 Science Fiction as a Gateway to Human Diversity (RS)
- 4901.172 Songs of Praise/Protest (RS)
- 4901.174 Ethics and the Professions
- 4901.178 In Search of Democracy : The Quest for Civil Liberties (RS)
- 4905.105 Honors Humanities (H) (RS)

**Artistic and Creative Experiences***Art*

- 0839.330 General Photography
- 1003.100 Introduction to Visual Arts
- 1002.300 Workshop in Art
- 1003.130 Art Appreciation
- 1003.210 History of American Art
- 1003.220 Modern Art
- 1009.110 Experiencing Art

*Music*

- 1004.118 Music Fundamentals
- 1004.127-428Ensembles I-VIII (1 sh): Choral Union, String Ensemble, Wind Ensemble, College Band, Chamber Choir, Concert Choir, Opera Workshop, Percussion Ensemble, Contemporary Music Ensemble, Guitar Ensemble, Orchestra, Lab Band
- 1006.102 General Music History
- 1006.109 Music Appreciation
- 1006.115 Growth & Development of Jazz (M/G)
- 1006.117 Expressing Music

## ACADEMIC AFFAIRS

- 1006.214 Musical Styles and Forms I
- 1006.215 Musical Styles and Forms II
- 1006.335 Musical Styles and Forms III
- 1006.447 Music in World Cultures: Asia & Oceania (M/G)
- 1006.448 Music in World Cultures: Africa India, Near & Middle East (M/G)

### *Theatre and Dance*

- 1007.130 Living Theatre
- 1007.135 Oral Interpretation of Literature
- 1007.195 Exploring Social Issues Through Theatre
- 1007.215 Experiencing Acting
- 1007.301 African, African-American Theatre: Intercultural Definitions
- 1007.339 History of Theatre to 1700
- 1007.340 History of Theatre from 1700-1956
- 1007.440 Contemporary World Theatre (LIT, WI)
- 1008.135 Elements of Dance
- 1008.146 World Dance Forms (M/G)
- 1008.202 Tap I
- 1008.236 Modern Dance I
- 1008.246 Ballet I
- 1008.256 Jazz Dance I
- 1008.311 African Influences in American Dance (M/G)
- ^ 1008.315 Creative Dance for Children
- ^ 1008.436 Dance History

### *Radio/TV/Film*

- ^ 1010.270-271 Film History & Appreciation I, II
- 1010.373 Communication Tech. in Film

### *Interdisciplinary*

- 4901.152 Beyond Face Value: Critical Analysis of Texts and Images (RS)
- 4901.166 Rhetoric of Music (RS)
- 4901.172 Songs of Praise/Protest (RS)
- 4901.176 Historical Aesthetics of Suffering (RS)

*NOTE: Courses listed above with (WI) or (M/G) fulfill both the Writing Intensive or Multicultural/Global requirement and the general education bank requirement.*

## **Writing Intensive Courses**

The following courses satisfy the requirement of one writing intensive course. They do not satisfy other general education "bank" distribution requirements. The student has to have completed College Composition I and II before enrolling in a course designated as WI.

### *American Studies*

^ 0313.402 Senior Seminar in American Studies

### *Art*

1003.252 Concepts in Art: Criticism

### *Biological Sciences*

^ 0401.321 Introduction to Virology (Lab 4 sh)

^ 0420.311 Ecology (Lab 4 sh)

^ 0401.440 Special Topics in Biological Sciences

### *Chemistry*

^ 1907.464 Adv Organic Chemistry I

### *Communication Studies*

1506.246 Small Group Communication

^ 1506.406 Seminar in Communication Studies

### *Economics*

^ 2204.492 Seminar in Economics

### *Engineering*

^ 0901.402 Senior Engineering Clinic II

### *English*

^ 1502.393 English Seminar I

^ 1502.394 English Seminar II

### *Foreign Languages and Literatures*

^ 1105.409 Advanced Spanish Grammar & Composition

### *Geography and Anthropology*

^ 2206.493 Research Seminar in Geography

### *History*

^ 2205.299 Intro to Historical Methods

### *Law and Justice*

2105.370 Theories of Crime & Criminality

2105.469 Seminar in Law/Justice

^ 2105.479 Seminar: Police Science

### *Liberal Studies*

^ 0313.402 Senior Seminar in American Studies

### *Management*

^ 0506.309 Organizational Behavior

### *Marketing*

^ 0509.384 Research Methods in Marketing

*Mathematics*

^ 1701.498 Mathematics Seminar

*Political Science*

2207.303 Campaigns, Political Parties & Interest Groups

^ 2207.489 Seminar in Political Science

*Psychology*

^ 2001.302 Research in Perception

^ 2001.315 Research in Child Development

^ 2002.306 Research in Adolescent Development

^ 2002.307 Research in Cognitive Psychology

^ 2002.308 Research in Learning & Behaviorism

^ 2002.309 Research in Social Psychology (M/G)

*Public Relations/Advertising*

^ 0604.434 Advertising Campaigns

^ 0606.353 Case Studies in Public Relations

^ 0606.454 Public Relations Planning

*Radio/TV/Film*

^ 0603.433 TV Program Packaging

*Reading*

^ 0830.322 Teaching Reading to Children w/ Special Needs

0830.421 School Reading Problems

*Sociology*

^ 2208.325 Deviant Behavior/Social Control

^ 2208.326 Socialization of the Child Through Adolescence

^ 2208.494 Field Experience Seminar in Sociology

*Writing Arts*

^ 0601.304 Writing with Style

^ 0601.400 Writing for the Workplace

^ 1501.301 Writing, Technology & Research

^ 1501.401 The Writer's Mind

**Multicultural/Global Courses**

The following courses satisfy the requirement of one Multicultural/Global Course. They do not satisfy other general education "bank" distribution requirements.

*Economics*

^ 2204.307 Economic Development

^ 2204.320 Contemporary Economic Systems

*English*

1502.200 Women in Literature

1502.216 Survey of African-American Literature

*Foreign Languages and Literature*

^ 1105.324 Spanish American Civilization & Culture

*Geography and Anthropology*

- ^ 2202.370 Peasant Societies & Cultures of the World
- 2206.301 Economic Geography
- 2206.303 Political Geography
- 2206.304 Population Geography
- 2206.342 Geography of Europe
- 2206.343 Geography of Asia
- 2206.344 Geography of Latin America
- 2206.346 Commonwealth of Independent States: Geography of U.S.S.R.
- 2206.347 Geography of Middle East

*History*

- ^ 2205.425 History of Feminism

*Law and Justice*

- 2105.386 Law and Human Rights

*Management/MIS*

- 0506.330 Managing International Business

*Marketing*

- ^ 0509.379 International Marketing

*Music*

- 1006.220 Singing Music of African-Americans

*Philosophy and Religion*

- 1509.330 Asian Thought

*Political Science*

- 2207.211 Women and American Politics

*Psychology*

- ^ 2001.105 Psychology of Ethnic Identity & Community in America
- ^ 2001.200 Psychology of Women & Cultural Exp.
- ^ 2001.235 African American Psychology
- ^ 2001.310 Psychology of Racism & Ethnocentrism

*Secondary Ed/Foundations*

- 0821.300 Intercultural Studies

*Sociology*

- ^ 2208.327 Comparative Education in Sociological Perspective

## The Rowan Seminar

**Maria Tahamont, Coordinator  
Department of Biological Sciences  
Science Hall  
(856) 256-4500 x3584  
[tahamont@rowan.edu](mailto:tahamont@rowan.edu)**

### Rowan 101 Seminar

Rowan Seminar is designed to help our first year students make a smooth academic transition to university life. The Rowan Seminar courses are special sections of General Education courses, many of which are popular with new college students. Students receive regular credit for successful completion of these courses.

Extensive research on the first-year experience of thousands of students provides compelling evidence that the high school learning environment is not always sufficient preparation for what new college students experience. 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 that take Rowan Seminar courses.

Rowan Seminar courses are designated in a student's course schedule with an RS after the title. These sections of the courses are limited to first year students. Rowan Seminar courses are designed to introduce students to the university classroom skills needed to succeed academically 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.

Within the subject context of the course, the professor will introduce every student to the following skills, values, and expectations at the university 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 classroom management skills

All seminar professors are 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.

For the most part, 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 coordinator or visit the Rowan Seminar website at <http://www.rowan.edu/elan/freshsem/>.

## Semester Abroad Programs

**Edward Smith, Interim Director  
International Center  
Bosshart 115  
(856) 256-4105  
[ic@rowan.edu](mailto:ic@rowan.edu)**

In addition to coordinating the Interdisciplinary International Studies Program, Rowan's International Center offers students the opportunity to participate in a wide range of university sponsored international programs (in Australia, Africa, Asia, South and Central America, Europe, etc.).

Students from all colleges work with academic advisors in their major to select a course of study that will enable them to complete one semester or one year of study abroad. All credits count to a Rowan degree, and all scholarships and financial aid are applicable. Summer Study Abroad, individualized programs and volunteer experiences are also available.

The International Center is committed to:

- \* Coordinating and presenting internationally focused academic, cultural and professional programs to the Rowan community.
- \* Providing support services to Rowan students, faculty and professionals engaged in international education, research, and international exchange activities.
- \* Collaborating and building partnerships with institutions engaged in international programs and activities in order to provide global learning experiences for members of the Rowan community.

For additional information visit the International Center in Bosshart 115 or at its website: [www.rowan.edu/internationalcenter](http://www.rowan.edu/internationalcenter).

## Academic Major Programs

Academic major programs listed with general education requirements in the colleges of Business, Communication, Engineering, Liberal Arts and Sciences and Fine 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 Career and Academic Planning Center.

## Second Major, Minor and 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 found elsewhere in this catalog.

When no departmental policy exists, the student must complete at least two-thirds (2/3) of the required course work at Rowan University.

Note: On the following pages will be found descriptions of each undergraduate major.

# INTERDISCIPLINARY STUDIES

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

**Corann Okorodudu, Coordinator**

**Bosshart Hall**

**856-256-4793**

**okorodudu@rowan.edu**

Rowan University offers an 18-semester hour multidisciplinary concentration designed to provide undergraduate students of all majors with a broad understanding of the development, experiences and contributions of Black people in the United States of America, including developments in Africa and the African Diaspora. Given its roots within the U.S. Civil Rights Movement, the program has a continuing commitment to critical social analysis, education that connects multiple perspectives, and social change through scholarship, advocacy and service. Twelve academic departments across the colleges of the university offer undergraduate courses that are cross-listed with African American Studies.

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 contact the coordinator for further information and advisement.

### 1. Requirements

**(6 s.h.)**

- 4901.104 Introduction to Africana Studies
- 1502.216 Survey of African American Literature
  
- OR*
- 2205.269 Afro-American History Since 1865

### 2. Related Electives

**(12 s.h.)**

- 1006.115 Growth & Development of Jazz
- 1006.220 The Singing Music of African Americans
- 1007.301 African, African American Theatre: Intercultural Definitions
- 1116.101 Elementary Zulu I
- 1116.102 Elementary Zulu II
- 1502.217 U.S. Literature of Latino and Hispanic Peoples
- 2105.386 Law and Human Rights
- 2105.205 Minorities, Crime & Justice
- 2202.202 Intro to Cultural Anthropology
- 2208.120 Sociology of Minority Groups
- 2205.268 African American History to 1865
- 2205.270 Sub-Saharan Africa to 1800
- 2205.271 Sub-Saharan Africa Since 1800

2205.425	History of Feminisms
1008.311	African Influences in American Dance
2205.322	Civil War and Reconstruction
2207.210	Black Americans and American Politics
2207.323	Politics of Race, Poverty, and Welfare
2001.105	Ethnic Identity & Community in America
2001.330	Psychology of Women and Cultural Experience
2201.310	Psychology of Racism and Ethnocentrism
2201.335	African American Psychology
2208.330	Social Stratification
2205.170	Issues in American History
2205.388	Comparative Race Relations
2205.422	Women in American History

**Special Topics:**

0601.402	Selected Topics in Communication
	African American Film History
	Harlem Renaissance

## Asian Studies Concentration

**Youru Wang, Coordinator****Bunce Hall****856-256-4077****wang@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 twenty-one credits of Required Courses, Core Courses and Electives will be awarded a certificate in Asian Studies upon completion of their degree.

The Concentration requirements are as follows:

<b>Required Course</b>		<b>3 s.h.</b>
1501.112	Readings in Asian Literature	
<i>OR</i>		
2207.240	Intro to Asian Political Systems	
<b>Core Courses</b>		<b>9 s.h.</b>
1003.401	Survey of Asian Art	
1509.330	Asian Thought	
1107.101	Elementary Chinese I	
1107.102	Elementary Chinese II	
2205.251	Modern China	
2205.354	Chinese Cultural History	
2206.343	Geography of Asia	
1510.220	Introduction to Buddhism	
2205.536	Modern Japan	

**Elective Courses**

- 2202.350 Comparative Cultures  
 2207.230 Comparative Political Systems  
 2204.320 Contemporary Economic Systems  
 2207.231 Contemporary World Problems  
 2202.420 Culture and Personality  
 2204.307 Economics of Developing Nations  
 2205.441 Imperialism and Colonialism  
 2204.310 International Economics  
 0504.320 International Finance  
 0509.379 International Marketing  
 2202.202 Intro to Cultural Anthropology  
 0808.206 Multicultural Issues in Special Education  
 1006.448 Music in World Cultures I: Asia and Oceania  
 2202.370 Peasant Societies and Cultures of the World  
 2105.330 Problems of World Justice  
 1502.116 Readings in World Literature  
 1510.200 Religions of the World  
 2208.220 Sociology of the Family  
 2215.322 The Sociology of Population  
 4901.130 Women in Perspective  
 2204.205 World Economic History  
 2205.120 World History Since 1550  
 2206.111 World Regional Geography

**Environmental Studies Concentration****Terry O'Brien, Coordinator****Science Hall****856-256-4500 x3587****[obrien@rowan.edu](mailto:obrien@rowan.edu)**

The interdisciplinary nature of the Environmental Studies Concentration is designed to broaden students' awareness of contemporary environmental issues. The 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 following are recommended courses for each career track:

**Program Requirements****Environmental Planning (18-24 s.h.)**

- 2206.308/309 Geographic Information Systems (GIS) I & II  
 2206.325 Geomorphology  
 2206.101 Physical Geography  
 2206.103/104 Geology I & II  
 2206.310 Land Use & Resource Development  
 0420.100 Intro to Natural Resources  
 2005.205 Environmental Psychology

2206.304	Population Geography
2202.321	Cultural Ecology
2215.322	The Sociology of Populations
2208.320	Urban Sociology
2206.302	Urban Geography
2206.355	Metropolitan & Regional Planning
2208.400	Environment Policy & Society
4999.300	Environmental Internship

**Environmental Sciences (18-24 s.h.)**

0420.330	Environmental Science
2206.308/309	Geographic Information Systems (GIS) I & II
2206.325	Geomorphology
2206.101	Physical Geography
2206.103/104	Geology I & II
1905.301	Chemistry in the Environment
0420.100	Intro to Natural Resources
0411.405	Environmental Microbiology
0420.425	Environmental Toxicology
0420.321	Physiological Ecology
0401.405	Conservation Ecology
0418.400	Limnology
0402.410	Stream Ecology
0418.360	Marine Biology
0420.310	Ecology
0420.474	Tidal Marsh Ecology Oceanography
1919.425	Marine Geology
2006.304	Population Geography
4999.300	Environmental Internship

*OR* one of the following:

0401.325	Mycology
0401.352	Ornithology
0402.201	Plant Diversity
0401.300	Phycology
0401.454	Herpetology
0401.458	Mammalogy
0401.470	Ichthyology
0407.200	Invertebrate Zoology
0421.401	Entomology

**Environmental Testing & Technology (18-24 s.h.)**

0420.330	Environmental Science
0420.100	Intro to Natural Resources
0411.405	Environmental Microbiology
0420.425	Environmental Toxicology

1905.301	Chemistry in the Environment
1906.100/101	Chemistry I & II
1907.200/201	Organic Chemistry I & II
1909.350	Quantitative Analysis
1909.410	Instrumental Methods
4999.300	Environmental Internship

## International Studies Concentration

**Edward C. Smith, Coordinator**

**Boschart Hall**

**856-256-4105**

**[smithe@rowan.edu](mailto:smithe@rowan.edu)**

The International Studies program is an interdisciplinary concentration that can help students from all majors prepare themselves for careers in the global economy. Whether you work for the private sector or government, an American company or a multinational firm, there is no escape from the reality of international interdependence. In this global economy, nearly every job you may choose will have an international facet. In the International Studies program students must complete at least 18 credit hours (i.e. 6 classes) selected from a set of core and area studies courses. These may also count toward major, minor, and/or general education requirements.

To prosper in this increasingly interdependent world, it is imperative that students become familiar with a wide range of economic, political, cultural, and environmental issues. The International Studies Concentration enables students to do this as they increase their knowledge of international relations and institutions, and develop their expertise in the culture, history and languages of specific parts of the world. Students are required to complete two courses from a bank of core courses, and four others from a variety of area studies (African, Asian, Eastern European and Russian, European, Latin American, and Middle Eastern) for a total of 18 credit hours. International Studies may be pursued in conjunction with a major or minor program, or integrated within general education requirements.

Knowledge of a foreign language is recommended. Students can also pursue study abroad, field experiences, and/or internships in partial fulfillment of International Studies requirements.

Interested students should contact the Coordinator.

### International Studies Core

0506.330	Managing International Business
0504.335	International Financial Management
0504.320	International Finance
2204.269	Selected Topics:Global Economy
2204.225	Women in the Economy
2204.307	Economic Development of Emerging Nations
2204.310	International Economics
2204.320	Contemporary Economic Systems
1502.116	Readings in World Literature
2206.111	World Regional Geography
2202.202	Cultural Anthropology
2206.102	Cultural Geography
2202.350	Comparative Cultures
2208.327	Comparative Education from a Sociological Perspective
2205.120	World History Since 1500

- 2205.421 Imperialism and Colonialism
- 2215.322 Sociology of Population
- 2105.240 Law and Human Rights
- 2105.490 Problems in World Justice
- 0509.379 International Marketing
- 1006.447 Music in World Cultures I: Asia and Oceania
- 1006.448 Music in World Cultures II: Africa, India, Near and Middle East
- 1510.200 Religions in the World
- 2207.230 Comparative Political Systems
- 2207.231 Contemporary World Problems
- 2207.320 International Relations
- 2207.420 International Law
- 2207.421 International Organizations
- 1007.440 Contemporary World Theatre

For information about eligible area studies courses, see the coordinator. There are courses not listed here that may be applicable to the concentration with the approval of the area advisor.

## **Leadership Studies Concentration**

**James Coaxum, Coordinator**

**Robinson Hall**

**856-256-4779**

**coaxum@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.

## **Leadership Studies**

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**

<i>Leadership Core</i>		<i>(9 s.h.)</i>
0828.100	Leadership Theory	
0828.205	Leadership Seminar I	
0828.305	Leadership Seminar II (capstone)	

<i>Leadership Communication Core</i>	(3 s.h.)
1506.206 Interpersonal Communication	
<i>Interdisciplinary Core</i>	(6 s.h.)

*(Choose any two)*

- 0506.300 Organizational Behavior
- 0506.304 Organizational Change and Development
- 2208.353 The Sociology of Complex Organizations
- 2208.230 Self and Society
- 0821.308 Group Theory and Behavior in Instruction
- 9821.301 Educational Policy: Introduction to Decision Making
- 2102.320 Public Administration
- 2208.310 Industrial/Organizational Psychology
- 2001.100 Social Psychology
- 0837.170 Stress Management

## **The Thomas N. Bantivoglio Honors Program Concentration**

**Mark Hutter, Coordinator**

**Savitz Hall**

**856-256-4643**

**hutter@rowan.edu**

The Thomas N. Bantivoglio Honors Program is an 18 semester hour concentration open to all students in every academic major and college. The program emphasizes interdisciplinary study and active learning. It enables students to take the initiative in their own learning and to work collaboratively with their peers. The concentration provides the space in which students may take up a different point of view, outside any single discipline, and enrich their study by making connections among ideas and disciplines. Small honors classes nurture development of student writing, speaking and critical thinking skills.

Each student is encouraged to find ways to think critically about the interplay between liberal learning and career preparation both within and beyond academic fields. As students participate in disciplinary majors where career preparation is more focused, the critical and interdisciplinary perspective of the honors concentration plays a complementary and crucial role in a total undergraduate education.

Enrollment in Rowan's Honors program also affords you the privilege of designated residential space for Honors-only students, priority registration, and of extended borrowing of library materials (six weeks instead of two). In addition, Honors students are given the opportunity to apply for one of several paid research assistantships offered each year and may also choose to engage in an Independent Research Project/Thesis with a faculty mentor during their junior or senior year.

Applications for admission to the concentration are sent to the Coordinator for review. Freshmen students are accepted based upon a careful reading of scores on standardized tests (e.g., SATs, Achievement Tests or ACT) and significant high school achievements (class rank and a letter of reference). Rowan University students and transfer students with a 3.5 grade point average are encouraged to apply for admission to the program. Students must receive A's or B's in all Honors courses in order to remain in the program. At graduation ceremonies, Honors Program Concentration students receive special recognition, and their status is highlighted in the commencement program and on their transcript.

At least nine semester hours of lower level courses and nine semester hours of upper level courses are selected from among those listed below.

Students can substitute one upper level discipline specific honors course as one of the three upper level courses required for the concentration.

Honors Program courses are not restricted to students enrolled in the Thomas N. Bantivoglio Honors Program. Students with memberships in honor societies within disciplines will also be allowed to take Honors Program courses. Also, students with grade point averages over 3.5 and relevant course prerequisites with a minimum grade requirement and with permission of instructor will be allowed to take Honors Program courses.

## **Honors Program Requirements**

### **A. Lower Level Courses** **9 s.h.**

(Three of the following courses are required, and students must enroll in honors sections).

- 4905.105 Honors Humanities
- 4905.180 Honors Mathematics
- 4905.185 Honors Natural Sciences
- 4905.190 Honors Social Sciences

### **B. Upper Level Courses** **9 s.h.**

- 4905.390 Honors Selected Topics (taken three times under different topics offered each semester or taken twice with an additional upper level discipline - specific honors course).

An Honors independent research project may be substituted for one of the upper level courses, under the supervision of a faculty member from any department. The project must first be approved by the Honors Coordinator.

## **Women's Studies Concentration**

**Ieva Zake, Coordinator**

**Campbell Library**

**856-256-4514**

**[zake@rowan.edu](mailto:zake@rowan.edu)**

Women's 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 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 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 will be required. Students interested in taking a particular course in Women's Studies or pursuing a concentration are encouraged to contact the Coordinator of Women's Studies for further information and advisement. Interested students can also contact the Registrar's Office to declare a concentration in Women's Studies. The Office of Women's Studies posts a list of courses offered each semester, and courses are also listed in the Schedule of Courses under Women's Studies.

## INTERDISCIPLINARY STUDIES

- 0821.300 Intercultural Studies
- 1010.272 Images of Women in Film
- 1305.302 Contemporary American Family
- 1502.200 Women in Literature
- 1502.216 African American Literature
- 1509.128 Philosophy of Gender
- 1509.369 Philosophy of Science
- 2001.201 Combating Child Abuse
- 2001.330 The Psychology of Women
- 2005.217 The Psychology of Gender and Alcoholism/Drug Abuse
- 2005.425 Family Psychology and Alcoholism/Drug Abuse
- 2005.450 The Psychology of Human Sexuality
- 2105.346 Women and Crime
- 2202.210 Natives of South America
- 2202.310 Indians of North America
- 2202.322 Sex and Sex Roles in Anthropological Perspectives
- 2204.225 Economic Roles of Women
- 2205.418 Women in Europe to 1700
- 2205.419 Women in Modern Europe
- 2205.268 Afro-American History I
- 2205.269 Afro-American History II
- 2205.305 Women and Islam
- 2205.354 Chinese Cultural History
- 2205.393 Women in African History
- 2205.422 Women in American History
- 2205.425 History of Feminisms
- 2205.455 Sex and Gender in History
- 2205.492 Seminar: History of Witchcraft
- 2207.211 Women in American Politics
- 2007.323 The Politics of Race, Poverty and Welfare in Urban Areas
- 2208.220 The Sociology of the Family
- 2208.370 The Sociology of Women
- 2208.436 Sociology of Medicine
- 2208.399 Sociology of the Holocaust
- 2208.493 Seminar on Gender Roles
- 4901.130 Women in Perspective
- 4901.200 Issues in Women's Health
- 4901.430 Women, Sex, and Power: Capstone Seminar in Women's Studies

## Air Force Reserve Officers' Training Corps (AFROTC)

**James G. MacEachern, Major USAF**  
**Assistant Professor of Aerospace Studies**  
**AFROTC, Detachment 750**  
**Saint Joseph's University**  
**Philadelphia, PA 19131-1399**  
**(610) 660-3194**

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 one-year, 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. In the two-year curriculum, a student attends a five-week summer training program and then enters the POC in the junior year. In the one-year curriculum, a senior or graduate student can enroll in aerospace studies and, after completing the undergraduate degree or graduate coursework, attend a seven-week summer training program and be commissioned upon completion of summer training.

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 the Professor of Aerospace Studies, AFROTC Det 750, Saint Joseph's University, Philadelphia, PA 19131; 610-660-3190; [rotc@sju.edu](mailto:rotc@sju.edu).

# Army Reserve Officers' Training Corps (ROTC)

**Captain Kirk Appletoft**

**Sargeant Arthur Valenzuela**

**Carriage House**

**(856) 256-4014**

**(215) 590-8808**

**Valenzuela@rowan.edu**

**www.taskforcedragon.com**

## Rowan University Army ROTC Program

The Rowan University Army Officer Education (AOE) Program offers students an opportunity to receive officer training while earning undergraduate or graduate degrees. Upon successful completion of the AOE program and completion of baccalaureate degree (or graduate degree) requirements, students are offered commissions as 2<sup>nd</sup> Lieutenants in the U.S. Army, with the choice of serving as junior officer leaders "on active duty" or in the U.S. Army Reserve or Army National Guard. Scholarship students in this program receive full tuition and fees, \$900 annual textbook stipend, and up to \$400 per month in additional general stipends.

Full-time undergraduate students participating in the Army Officer Education Program may compete for "national" two-year, three-year, or four-year on-campus scholarships. Full-time graduate students enrolled in a two-year graduate program may compete for two-year on-campus scholarships as well. Full-time undergraduate and graduate students may also compete for two-year and three-year New Jersey Army National Guard scholarships, which provide the same benefits as "national" Army ROTC scholarships plus up to an additional \$1000 per month (or more) in direct payments and stipends to the student. Students who accept New Jersey Army National Guard scholarships are required to join a local New Jersey Army National Guard unit, but are not allowed by military orders to deploy overseas until completion of both their graduation from Rutgers and a subsequent period of 6-12 months to complete required post-graduation U.S. Army officer training.

Although students are encouraged to enroll in the program as freshmen, enrollment is possible through the freshmen and sophomore years. Freshmen and Sophomore-level classes are held weekly here on campus at the ROTC Department offices in the Carriage House. All junior and senior-level classes are held weekly at Drexel University. During the freshmen and sophomore years, students are not required to enroll in Leadership Lab classes. Beginning with the Junior Year, enrollment in Leadership Lab classes is a requirement. Leadership Labs are held at two to three times during the Fall and Spring semesters at local U.S. Army military installations in order to maximize the quantity and quality of training resources available to students.

Classroom and Leadership Lab instruction is ultimately focused on development of the individual student's leadership values, attributes and skills. These skills are developed through frequent exposure to "hands-on" leadership experience of small groups of people from diverse backgrounds under physically and mentally challenging conditions. Students enrolled in the program also have the opportunity to participate in U.S. Army training such as Airborne School, Air Assault School, Mountain Warfare School and numerous internships with Department of the Army/Department of Defense-level command/leadership and technically-oriented organizations.

Students incur no service obligation until the start of their junior year (enrollment in 1801.310 and 1801.301), unless students accept an Army ROTC scholarship or NJ Army National Guard scholarship; ROTC scholarship students incur a service obligation upon formal acceptance of the scholarship. Additional specific information regarding registration procedures, prerequisites, qualifications, or other matters pertaining to participation in the Rowan University Army Officer Education Program may be obtained by writing/calling: Rowan University Army ROTC, 856-256-4014 (Carriage House), or Drexel University Army ROTC, 3205 Lancaster Avenue, Philadelphia, PA 19104, 215-590-8808, or visit the Drexel Army ROTC website at [www.taskforcedragon.com](http://www.taskforcedragon.com).

## Requirements

ROTC Time Commitments: Time commitments vary by class.

Freshmen: about 4 hours a week. (Military Science class: 1 hour per week, varying times and days; physical fitness training [PT] – TUES, THURS and FRI 0630-0730)

Sophomores: about 5 hours a week. (Military Science class: 2 hour per week, varying times and days; physical fitness training [PT] – TUES, THURS and FRI 0630-0730)

Juniors: about 6 hours a week. (Military Science class: 3 hour per week, WED 0600-0830; physical fitness training [PT] – TUES, THURS and FRI 0630-0730)

Seniors: about 6 hours a week. (Military Science class: 3 hour per week, WED 0600-0830; physical fitness training [PT] – TUES, THURS and FRI 0630-0730)

Leadership Labs: are held 2-3 times per semester at local military installations, or at Drexel University (varying days, times and duration)

1 Weekend Field Training Exercise (FTX) per semester at Ft. Dix, NJ or Ft. Indiantown Gap, PA.

# UNDERGRADUATE PROGRAMS

## WILLIAM G. ROHRER

### COLLEGE OF BUSINESS

**Edward J. Schoen, Dean**

**Bunce Hall**

**856-256-4025**

**schoen@rowan.edu**

**Margaret Van Brunt, Assistant Dean**

**Bunce Hall**

**856-256-4047**

**vanbrunt@rowan.edu**

**Karen T. Siefring, Assistant to the Dean for Student Advisement**

**Bunce Hall**

**856-256-4037**

**Siefring@rowan.edu**

## **Mission**

The College of Business of Rowan University delivers challenging, undergraduate and master's level business programs that enable its students to compete and succeed responsibly in their careers.

The College of Business Faculty make quality teaching, supported by relevant scholarship, their highest priority.

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 Management Institute, the College of Business provides continuing education and workforce development programs to regional business organizations.

In partnership with the Center for Innovation and Entrepreneurship, the College of Business promotes entrepreneurship throughout the University and in the regional community.

## **Requirements**

The General Education component of the undergraduate curriculum for the degree programs in Business Administration and Accounting must comprise at least 50% of the student's four-year program, and students pursuing undergraduate degree programs offered by the other colleges of Rowan University are not permitted to take more than 25% of their baccalaureate program courses from the College of Business.

Moreover, no student will be permitted to enroll in upper division courses (level 300 and higher) offered by the College of Business unless he/she has completed the prerequisite and (1) has been admitted to the College of Business as a Business Administration (501) or Accounting (503) major; (2) is pursuing the Minor in 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-matriculating student for transfer to another academic institution. Transfer students should note that the degree programs in Business Administration and Accounting require at least 50% of the business credit hours be earned at Rowan University.

## Goals

The College strives for quality personal education for both undergraduate and graduate students. Faculty members are encouraged to work on continuous improvement of instruction and curriculum. They are also encouraged to undertake scholarly activity to remain current with the theories, concepts and practices in their teaching fields.

## Vision

The vision of the College of Business is to provide its students with a quality business education which enables them to achieve successful careers in the dynamic environment of the 21st century.

## Accreditations

Rowan University's business programs are accredited by The Association to Advance Collegiate Schools of Business (AACSB International). To achieve this prestigious accreditation, the business program successfully demonstrated a wide range of quality standards relating to curriculum, faculty resources, admissions, degree requirements, facilities, financial resources, and intellectual climate.

## Programs Offered

The College of Business offers nine distinct programs to serve its undergraduate and graduate students: a Bachelor of Science in Business Administration (BSBA) program in which students can pursue specializations in Entrepreneurship, Finance, Human Resource Management, Management, Management Information Systems and Marketing; a Bachelor of Science in Accounting (BSA); a minor in Business Administration; and a Master of Business Administration (MBA) degree. The College seeks to ensure that each student completing a program of study has a professional business education grounded in the liberal arts. The aims of the program are to:

- A. enable students to develop a broad general management approach toward organizations and the changing social and international environments they encounter;
- B. foster the students ability to develop and organize information for critical analysis as the basis for decision making;
- C. enable students to understand standards of professional and ethical behavior hich are consistent with reasonable societal expectations; and
- D. develop in students the communications and technological expertise required for initial positions, as well as for career growth.

## Departments

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

### **MBA Program Director**

**Daniel J. McFarland, Ph.D.**

**856-256-5426**

**mcfarland@rowan.edu**

The Rowan University MBA program is accredited by AACSB International—The Association to Advance Collegiate Schools of Business. Awarded to only 18 percent of U. S. business programs, AACSB accreditation assures quality and promotes excellence and continuous improvement in undergraduate and graduate education for business administration and accounting.

## **Services**

The College recognizes the importance of providing service to the University and community. This community includes businesses, public and nonprofit organizations, professional organizations and the general public. Service to these constituents includes continuing education and professional activities such as workshops, symposiums, presentations and consulting activities. The Management Institute is organized to implement this service mission of the College of Business.

### **Core Requirements**

B.S. in Business Administration

#### **I. General Education 52 s.h.**

(See p. 48 for all-university requirements)

##### *A. Communications 9 s.h.*

- 1501.111 College Composition I (3 s.h.) or
- 1501.105 Integrated College Composition I (4 s.h.)
- 1501.112 College Composition II
- 1506.202 Public Speaking

##### *B. Math and Science 13 s.h.*

- 1701.130 Calculus I (4 s.h.) or
- 1703.125 Calculus Techniques and Applications (3 s.h.)
- 1702.260 Statistics I
- 0701.200 Computing Environments or
- 0701.102 Intro to Programming or
- 0704.103 Computer Science and Programming or
- 0704.110 Intro to Programming Using Robots or
- 0701.140 Enterprise Computing I

Choose a lab science course from approved general education courses.

##### *C. Social and Behavioral Sciences 9 s.h.*

- 2204.101 An Introduction to Economics - A Macroeconomic Perspective
  - 2204.102 An Introduction to Economics - A Microeconomic Perspective
- Choice from approved general education courses (Psychology or Sociology recommended)

##### *D. History, Humanities, Language 6 s.h.*

Choose courses from approved general education courses.

##### *E. Artistic and Creative Experience 3 s.h.*

Choose course from approved general education courses.

##### *F. Non-Program Courses 12 s.h.*

**II. Non-Business Electives** **8 s.h.**

Any university non-business catalog course or non-business approved transfer course; consult with advisor.

**III. Required courses for all College of Business Students** **27 s.h.***Sophomore Year*

- 0503.210 Principles of Accounting I
- 0503.211 Principles of Accounting II
- 1498.242 Legal Environment of Business
- 0509.200 Principles of Marketing

*Junior and Senior Years*

- 0506.305 Operations Management
- 0504.300 Principles of Finance
- 0506.300 Organizational Behavior
  
*OR*- 0506.309 Organizational Behavior WI
- 0702.334 Management Information Systems
- 0506.402 Business Policy

**IV. Specialization Courses** **30 s.h.****Senior Standing as a Business Major is defined as:**

1. minimum of 90 credit hours completed
2. Business Administration or Accounting Major

**Junior Standing as a Business Major is defined as:**

1. minimum of 57 credit hours completed
2. Business Administration or Accounting Major

**Sophomore Standing as a Business Administration or Accounting Major is defined as:**

1. minimum of 24 credit hours completed

**Minor in Business**

The Minor in Business requires students to complete 15 credit hours in general education requirements. A student must achieve a minimum 2.5 GPA in these courses.

*Required Prerequisite Courses* **15 s.h.**

- 2204.101 An Introduction to Economics - A Macroeconomic Perspective
- 2204.102 An Introduction to Economics - A Microeconomic Perspective
- 0701.200 Computing Environments
- 1702.260 Statistics I
- 1703.125 Calculus Techniques & Applications

*Business Courses*

21 s.h.

The Minor in Business requires students to take 21 credit hours in business courses, all of which must be taken from the Rowan 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 are:

*Lower Division*

- 1498.242 Legal Environment of Business
- 0503.210 Principles of Accounting I
- 0503.211 Principles of Accounting II
- 0509.200 Principles of Marketing

*Upper Division*

- 0506.300 Organizational Behavior OR 0506.309 Organizational Behavior - WI
- 0504.300 Principles of Finance
- 0702.334 Management Information Systems

## **Accounting and Finance**

**Carol Welsh, Chair**  
**Bunce Hall**  
**(856)256-4028**  
**welsh@rowan.edu**

The Accounting and Finance Department awards a B.S. in Accounting and a B.S. in Business Administration with a specialization in Finance.

Foundation courses offer students, regardless of their specializations, 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.

### **B.S. 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 degree in Accounting must maintain a 2.00 grade point average overall as well as a 2.50 grade point average overall in the business core and Accounting major.

#### **Course requirements**

*General Education* 52-54 s.h.

#### **Major Area Requirements**

*Business Core* 27 s.h.

- 0503.210 Principles of Accounting I
- 0503.211 Principles of Accounting II
- 1498.242 Legal Environment of Business
- 0509.200 Principles of Marketing

0506.305	Operations Management
0504.300	Principles of Finance
0506.300	Organizational Behavior
<i>OR</i>	
0506.309	Organizational Behavior(WI)
0503.320	Accounting Information Systems
0506.402	Business Policy

*Accounting Major Requirements**30 s.h.*

0503.310	Intermediate Accounting I
0503.311	Intermediate Accounting II
0503.326	Cost Accounting
0503.410	Auditing
0503.416	Advanced Accounting
0503.428	Integrative Accounting Seminar
0503.430	Individual Taxation
0503.431	Taxation of Business Entities
0504.435	International Financial Management
1498.400	Law for Accountants

*Business Elective**3 s.h.*

Choice of any course in the College of Business, or Business Ethics (1509.322), and excluding any internship other than Supervised Internship in Accounting (0503.300)

*Free Electives**7-8 s.h.***Total Credits for the Program****120 s.h.****B.S. in Business Administration, Finance Specialization****Finance**

The Finance specialization 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 Business Administration with a specialization 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.

**Course requirements:***General Education**52 s.h.*

It is recommended that Statistics II be taken in preparation for senior-level (400-level) Finance courses.

## **Major Area Requirements**

<i>Business Core</i>	<i>27 s.h.</i>
0503.210 Principles of Accounting I	
0503.211 Principles of Accounting II	
1498.242 Legal Environment of Business	
0509.200 Principles of Marketing	
0506.305 Operations Management	
0504.300 Principles of Finance	
0506.300 Organizational Behavior	
<i>OR</i>	
0506.309 Organizational Behavior (WI)	
0702.334 Management Information Systems	
0506.402 Business Policy	
<i>Finance Specialization</i>	<i>30 s.h.</i>
<b>Required:</b>	
0503.310 Intermediate Accounting I	
0503.316 Concepts in Federal Taxation	
0504.422 Financial Management I	
0504.423 Financial Management II	
0504.431 Investments/Portfolio Analysis	
0504.433 Financial Institutions and Markets	
0504.435 International Financial Management	
Electives: Elective courses are generally offered only once an academic year.	
Select any three of the following courses:	
0503.311 Intermediate Accounting II	
0504.424 Seminar in Finance	
0504.425 Risk Management	
0504.430 Supervised Internship in Finance	
0504.327 Selected Topics in Finance	
<i>Business Elective</i>	<i>3 s.h.</i>
Choice of any 200, 300, 400, 500 level College of Business course or Business Ethics (1509.322), and excluding any internship other than Supervised Internship in Finance (0504.430)	
<i>Free Electives</i>	<i>8 s.h.</i>
<b>Total Credits for the Program</b>	<b>120 s.h.</b>

# Management and Management Information Systems

**Robert S. Fleming, Chair**  
**Bunce Hall**  
**856-256-4450**  
**fleming@rowan.edu**

The Management and Management Information Systems Department awards a B.S. in Business Administration with specializations in Entrepreneurship, Human Resource Management, Management, and Management Information Systems (MIS). The department courses offer students a solid grounding in management theory that contributes to their professional preparation. Majors benefit from a curriculum that combines liberal arts requirements, intensive business theory and fundamentals, and many hands-on learning opportunities.

## Management Information Systems

The specialization in Management Information Systems includes the common business core and emphasizes the need for and use of information in a business environment. Because information is so often stored and processed by computerized means, this program includes extensive coursework in computing. The specialization prepares students for careers in information systems.

Students specializing in MIS learn how to analyze complex business situations, solicit information from individuals and systems, write functional and specification documents, effectively communicate with non-technical and technical people, design and develop technological solutions, implement and integrate various technologies, propose and evaluate alternative solutions, develop and manage project plans, and assess system success and organizational impacts. Critical thinking and communication skills are emphasized as students become proficient in designing and developing Web-based electronic commerce and intranet solutions, networking solutions, and relational database solutions.

Students working toward a B.S. in Business Administration with a specialization in Management Information Systems must maintain a 2.00 grade point average overall and a 2.50 grade point average in all business courses taken.

### Course requirements:

*General Education* 52-54 s.h.

The specific general education requirements for this program are the same as for all College of Business students.

*Business Core* 27 s.h.

0509.200	Principles of Marketing
0503.210	Principles of Accounting I
0503.211	Principles of Accounting II
1498.242	Legal Environment of Business
0506.305	Operations Management
0504.300	Principles of Finance
0506.300	Organizational Behavior OR
0506.309	Organizational Behavior (WI)
0702.334	Management Information Systems
0506.402	Business Policy

<i>Mgmt Information Specialization</i>	<i>33 s.h.</i>
0702.338	Design of Database Systems
0702.330	Business Systems
0702.322	Principles of Systems Design
0702.410	Advanced Database Management
0702.427	Network Management
0702.428	Business Web Applications
0702.425	Project Management
0506.330	Managing International Business
0702.430	E-Business: IS Perspective
0702.420	MIS Capstone Experience

*Choose one courses from the following:*

0503.320	Accounting Information System
0503.326	Cost Accounting
0504.422	Financial Management I
0506.304	Organizational Change and Development
0506.326	Entrepreneurship and Small Business Management
0506.361	Supervised Internship
0506.401	Independent Project
0506.415	Management Consulting Field Study
0509.305	Internet Marketing
0506.420	Principles of Training/Training Management
0601.400	Writing for the Workplace
0701.102	Introduction to Programming
0701.205	Computer Lab Techniques
0702.340	Decision Support System
0704.110	An Introduction to Programming Using Robots
0704.222	Data Structure and Algorithms
1509.230	Symbolic Logic
1509.322	Business Ethics
1506.206	Interpersonal Communication
2206.360	Introduction Geographic Information Systems
2206.415	Advanced Geographic Information Systems
4901.265	Computer and Society

<i>Free Electives</i>	<i>5-7 s.h.</i>
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<b>Total Credits for the Program</b>	<b>120 s.h.</b>
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## Management

The Management specialization prepares students for meaningful positions in management, while providing them with a foundation for career growth. The management program is designed to provide a strong foundation in both traditional and innovative management techniques, blending theory and practice that includes classroom instruction, internships, and lectures by 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 offered within the department will emphasize the increasing importance of information technology in business decision making, a concern for legal, and ethical and social responsibility, the quality management and control tools for maintaining a competitive advantage, the globalization of the business environment, and the management of a new, diverse workforce.

Students working toward a B.S. in Business Administration with a Management specialization must maintain a 2.00 grade point average overall and a 2.50 grade point average in all business courses taken.

### **Course requirements:**

#### *General Education*

*52-54 s.h.*

The specific general education requirements for this program are the same as for all College of Business students.

### **Major Area Requirements**

#### *Business Core*

*27 s.h.*

- 0509.200 Principles of Marketing
- 0503.210 Principles of Accounting I
- 0503.211 Principles of Accounting II
- 1498.242 Legal Environment of Business
- 0506.305 Operations Management
- 0504.300 Principles of Finance
- 0506.300 Organizational Behavior OR
- 0506.309 Organizational Behavior (WI)
- 0702.334 Management Information Systems
- 0506.402 Business Policy

#### *Management Specialization*

*18 s.h.*

- 0601.400 Writing for the Workplace (WI)
- 0506.310 Leadership and Supervision for Management
- 0506.311 Decision-Making Tools for Managers
- 0506.330 Managing International Business
- 0506.405 Business Management Simulation
- 0506.361 Supervised Internship OR
- 0506.430 Business Field Experience

#### *Management Electives*

*15 s.h.*

Choose 5 courses with at least one being from each of the three banks below:

#### *Quantitative Skills:*

- 0506.404 Quality Management
- 0702.300 Integrated Business Software Tools
- 0506.354 Managerial Data Analysis
- 0506.426 New Venture Development
- 0509.378 Product, Price, and New Venture Management
- 0503.426 Cost Accounting
- 2204.390 Risk and Insurance

*Qualitative People Skills:*

- 0506.304    Organizational Change and Development
- 0506.302    Management of Human Resources
- 0506.420    Principles of Training and Training Management
- 0506.315    Recruitment and Selection
- 0506.327    Strategic Issues in Family Business
- 0509.382    Sales Force Management
- 0509.376    Consumer Behavior
- 1509.322    Business Ethics
- 1105.312    Spanish for Business
- 0506.361    Supervised Internship (additional 3.0 s.h.)

*Organizational Task Skills:*

- 0506.450    Technology Entrepreneurship
- 0506.340    Entrepreneurship and Innovation
- 0506.326    Entrepreneurship and Small Business Management
- 0509.360    Services Marketing
- 0702.430    E-Business: IS Perspectives
- 0509.372    Retailing
- 0509.350    Management of Advertising and Promotion
- 2102.320    Public Administration
- 2208.401    Human Service Organizations
- 2208.353    The Sociology of Complex Organizations
- 0506.312    Special Topics in Management I: Changes in the Economic Environment
- 0506.313    Special Topics in ManagementII: Business Seminar

<i>Free Electives</i>	<i>6-8 s.h.</i>
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<b>Total Credits for Program</b>	<b>120 s.h.</b>
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## **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 specialization 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 Business Administration with a specialization 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.

### **Course requirements:**

<i>General Education</i>	<i>52-54 s.h.</i>
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The specific general education requirements for this program are the same as for all College of Business students.

## **Major Area Requirements**

<i>Business Core</i>		<i>27 s.h.</i>
0509.200	Principles of Marketing	
0503.210	Principles of Accounting I	
0503.211	Principles of Accounting II	
1498.242	Legal Environment of Business	
0506.305	Operations Management	
0504.300	Principles of Finance	
0506.300	Organizational Behavior OR	
0506.309	Organizational Behavior (WI)	
0702.334	Management Information Systems	
0506.402	Business Policy	
<i>Human Resource Management Specialization</i>		<i>18 s.h.</i>
0506.302	Management of Human Resources	
0506.330	Managing International Business	
0506.315	Recruitment and Selection	
0516.401	Labor/Employee Relations	
0506.425	Management of Compensation	
1498.335	Legal Aspects of Human Resource Management	
<i>Human Resource Management Electives</i>		<i>15 s.h.</i>
<i>Select 15 s.h. from the following list:</i>		
0506.319	Special Topics in Human Resource Management	
0506.304	Organizational Change and Development	
0506.318	Human Resources Information Systems	
0702.300	Integrated Software Tools for Business	
0506.404	Quality Management	
0506.420	Principles of Training and Training Management	
1509.322	Business Ethics	
2204.345	Labor Economics	
1105.312	Spanish for Business	
1792.261	Statistics II	
2005.402	Psychology of Conflict Resolution	
0506.361	Supervised Internship	
or any upper-level non-required courses offered by Rowan University's College of Business		
<i>Free Electives</i>		<i>6-8 s.h.</i>
<b>Total Credits for Program</b>		<b>120 s.h.</b>

## **Entrepreneurship**

The specialization in Entrepreneurship was created to meet the needs of students who want to develop and run their own companies or engage in entrepreneurship management practices. Through courses such as New Venture Development, Strategic Issues in Family Business, and Entrepreneurship and Innovation, students gain insight into what it takes to be their own boss. Students working toward a B.S. in Business Administration with a specialization in Entrepreneurship must maintain a 2.00 grade point average overall and a 2.50 grade point average in all business courses taken.

### **Course requirements:**

#### *General Education*

*52-54 s.h.*

The specific general education requirements for this program are the same as for all College of Business students.

### **Major Area Requirements**

#### *Business Core*

*27 s.h.*

- 0509.200 Principles of Marketing
- 0503.210 Principles of Accounting I
- 0503.211 Principles of Accounting II
- 1498.242 Legal Environment of Business
- 0506.305 Operations Management
- 0504.300 Principles of Finance
- 0506.300 Organizational Behavior OR
- 0506.309 Organizational Behavior (WI)
- 0702.334 Management Information Systems
- 0506.402 Business Policy

#### *Entrepreneurship Requirements*

*12 s.h.*

- 0506.240 Entrepreneurship and Innovation
- 0506.330 Managing International Business (M/G)
- OR*
- 0509.379 International Marketing (M/G)
- 0509.384 Research Methods in Marketing (WI)
- 0506.415 Management Consulting Field Study

#### *Entrepreneurship Electives*

*12 s.h.*

- 0506.326 Entrepreneurship and Small Business Management
- 0506.426 New Venture Development
- 0506.327 Strategic Issues in Family Business
- 0506.328 Evaluating Franchising Opportunities
- 0506.342 Financing and Legal Aspect of Entrepreneurship
- 0506.361 Supervised Internship
- 0506.344 Entrepreneurial Growth Strategies
- 0506.450 Technology Entrepreneurship

*Business Electives**9 s.h.**Select 9 s.h. from the following list:*

- 0509.378 Product, Price, and New Venture Management
- 0509.360 Services Marketing
- 0509.391 Business to Business Marketing
- 0506.304 Organizational Change and Development
- 0506.405 Business Management Simulation
- 0702.300 Integrated Business Software Tools
- 0503.326 Cost Accounting
- 0503.328 Entrepreneurial Accounting
- 1509.322 Business Ethics
- 1007.365 Theatre Management
- 2102.320 Public Administration
- 2204.307 Economic Development
- 2204.340 Regional Economics of Southern N.J.

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

## **Marketing**

**Berhe Habte-Giorgis, Chair**  
**Bunce Hall**  
**(856) 256-4029**  
**habte@rowan.edu**

The Marketing Department awards a Bachelor of Science Degree in Business Administration with a specialization in Marketing.

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.

Students specializing in Marketing 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 concentrations in other fields of study to increase their knowledge perspective and enhance their employability in a dynamic job market.

### **B.S. Business Administration, Marketing Specialization**

*General Education**52-54 s.h.*

The specific general education requirements for this program are the same as for all College of Business students.

## Major Area Requirements

<i>Business Core</i>	<i>27 s.h.</i>
0503.210 Principles of Accounting I	
0503.211 Principles of Accounting II	
1498.242 Legal Environment of Business	
0509.200 Principles of Marketing	
0506.305 Operations Management	
0504.300 Principles of Finance	
0506.300 Organizational Behavior	
0702.334 Management Information Systems	
0506.402 Business Policy	
<i>Marketing Specialization</i>	<i>33 s.h.</i>
Required:	
0509.376 Consumer Behavior	
0509.384 Research Methods in Marketing (WI)	
0509.379 International Marketing (M/G)	
0509.403 Strategic Marketing Management	
<b>Electives:</b> Elective courses are generally offered only once an academic year.	
<i>Select 15 s.h. from the following list:</i>	
0509.305 Internet Marketing	
0509.315 Personal Selling	
0509.330 Marketing Channels	
0509.350 Management of Advertising and Promotion	
0509.360 Services Marketing	
0509.372 Retailing	
0509.378 Product, Price & New Venture	
0509.375 Business Logistics	
0509.382 Sales Force Management	
0509.390 Selected Topics in Marketing	
0509.391 Business to Business Marketing	
0509.405 Management Communications and Public Relations	
0509.411 Supervised Internship in Marketing	
<i>Business Elective:</i>	<i>6 s.h.</i>
The Business electives can be any two courses from the following list:	
Any non-required 300 or 400 level course offered by the Marketing, Management/MIS, or Accounting/Finance departments except any internship course offered by any other department.	
<i>Free Electives</i>	<i>6-8 s.h.</i>
<b>Total Credits for Program</b>	<b>120 s.h.</b>

# COLLEGE OF COMMUNICATION

**Craig Monroe, Dean**

**Bozorth Hall**

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**monroe@rowan.edu**

**Linda C. Sweeten, Assistant Dean for Administration**

**Bozorth Hall**

**856-256-4337**

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**856-256-4090**

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## 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.

## Programs Offered

The College offers six specializations: Advertising, Communication Studies, Journalism, Public Relations, Radio/TV/Film, and Writing Arts. The department of Writing Arts administers the general education writing program for the University, a dual major in Writing Arts and Elementary or Early Childhood Education, and a stand-alone specialization. All communication students, regardless of their major specialization, will graduate with a B.A. degree in Communication. The College also houses two graduate programs: the M.A. in Public Relations and the M.A. in Writing.

The College of Communication at Rowan University blends the theoretical and the practical, building upon an expansive base of general education courses that serve to develop liberalized perspectives in all areas. A bank of core courses common to all specializations provides a fundamental relationship among all of them. These courses are Mass Media and Their Influences, Communication Theory and the all-university requirements, College Composition I and II and Public Speaking.

To graduate, students must meet a minimum of two requirements:

1. Complete all general education and free elective requirements.
2. Complete all specialization requirements with a cumulative grade point average of 2.5 or better in major courses. Any grade below C minus will not count within the major. In addition, Communication majors must maintain a G.P.A. of 2.5 or better in major courses at all times.

Students who fall below the 2.5 G.P.A. will be placed on academic probation by the Academic Standing Committee of the College and may not hold elected office with any student organization. Failure to correct this deficiency within one semester will lead to dismissal from the program. Students may enroll in a specific course offered by the College of Communication no more than twice without permission of the Academic Standing Committee or a chairperson.

Withdrawal from a course counts as having been enrolled in that course.

## Departments

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

## Services

In addition to regular classrooms, the College of Communication makes extensive use of specialized laboratories. Students learn in new, state-of-the-art, 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.

The college also provides students with two networked writing labs and tutorial services in writing for a variety of classes.

## Core Requirements

All of the College of Communication major programs, except the Writing Arts program, require the same general education requirements. Students should also refer to the all-university requirements in this catalog.

<b>General Education</b>	<b>52-53 s.h.</b>
<i>Communication</i>	<i>9-10 s.h.</i>
1501.111   College Composition I	
<i>OR</i>	
1501.105   Integrated College Composition	
1501.112   College Composition II	
1506.202   Public Speaking	
<i>Science and Mathematics</i>	<i>10 s.h.</i>
Mathematics Lab Science (4 s.h.) Choice	
<i>Social and Behavioral Sciences</i>	<i>12 s.h.</i>
Sociology choice	
Psychology choice	
Economics or Political Science choice	
Choice	
<i>History, Humanities &amp; Languages</i>	<i>12 s.h.</i>
Literature choice	
History or Philosophy choice	
Choice	
Choice	
<i>Artistic and Creative Experience</i>	<i>3 s.h.</i>
<i>Non-Program Courses</i>	<i>6 s.h.</i>

# Communication Studies

**Cynthia Corison, Chair**  
**Hawthorn Hall**  
**(856)256-4348**  
**corison@rowan.edu**

The Communication Studies department offers a specialization in the discipline of communication that enables students to develop a sophisticated understanding of communication theory, strategies, and skills. Courses such as Persuasion and Social Influence, Interpersonal Communication, Small Group Communication, Rhetorical Theory, Ethical Issues in Human Communication, Public Opinion, and Seminar in Communication Studies provide a broad and rigorous grounding in the communication theory, research, and practice. In addition, the department houses core courses common to all communication majors such as Mass Media and Their Influences, Communication Theory, and Public Speaking.

## Communication Studies

**I. General Education (see page 91)** **52-53 s.h.**

**II. Major Requirements** **18 s.h.**

- 0601.220 Introduction to Communication Studies
- 0601.203 Mass Media and Their Influences
- 0601.300 Communication Theory
- 0601.320 Ethical Issues in Human Communication
- 1506.330 Communication Studies Research Methods
- 1506.406 Seminar in Communication Studies

**III. Communication Studies Emphases** **12 s.h.**

**Select four courses from one of the following groups:**

*A. Rhetoric/Cultural Criticism*

- 0601.222 Rhetorical Theory
- 0601.323 Images of Gender in Popular Culture
- 1506.441 Rhetorical Criticism
- 1506.205 Persuasion and Social Influence
- 0699.462 Public Opinion
- 0601.406 Special Topics in Communication
- 0605.301 Political Communication

*B. Interpersonal/Organizational Communication*

- 0601.221 Organizational Communication Theory and Research
- 0601.321 Health Communication
- 0601.322 Family Communication
- 1506.206 Interpersonal Communication
- 1506.246 Small Group Communication
- 0601.406 Special Topics in Communication

**IV. Related Electives** **9 s.h.**

- Select three courses from the following group
- 0699.361 Intro to Survey Research
  - 0601.207 Fiction and Film
  - 0601.221 Organizational Communication Theory and Research
  - 0601.222 Rhetorical Theory
  - 0601.321 Health Communication
  - 0601.322 Family Communication
  - 0601.323 Images of Gender in Popular Culture
  - 0601.400 Writing for the Workplace
  - 0603.220 Intro to Electronic Media
  - 0603.205 TV History and Appreciation
  - 0604.330 Intro to Advertising
  - 0606.350 Intro to Public Relations
  - 0607.335 Communication Law
  - 0699.363 Field Experience I
  - 0699.364 Field Experience II
  - 0699.462 Public Opinion
  - 1010.270 Film History and Appreciation I
  - 1010.271 Film History and Appreciation II
  - 1010.272 Images of Women in Film
  - 1505.280 Semantics
  - 1505.380 Linguistics
  - 1506.205 Persuasion and Social Influence
  - 1506.206 Interpersonal Communication
  - 1506.246 Small Group Communication
  - 1506.300 Advanced Public Speaking
  - 1506.340 Argumentation and Debate
  - 0601.406 Special Topics in Communication
  - 1506.441 Rhetorical Criticism

**V. Free Electives** **28-29 s.h.****VI. Total Credits in Program** **120 s.h.**

## **Journalism**

**Carl D. Hausman, Chair****Bozorth Hall****856-256-4049****hausman@rowan.edu**

The Department of Journalism houses the Journalism specialization and minor.

### **Journalism Specialization**

The Journalism specialization prepares students for a variety of career opportunities in print, broadcast and on-line journalism. The *Whit*, the weekly campus newspaper, is housed in the department.

<b>I. General Education</b>	<b>52-53 s.h.</b>
Requirements are the same for all Communication students; see page 91.	
<b>II. Major Requirements</b>	<b>27 s.h.</b>
0601.203 Mass Media	
0601.300 Communication Theory	
0602.310 News Reporting I	
0602.311 News Reporting II	
0602.312 Special Journalistic Writing	
0602.318 Journalistic Sources of Information	
0607.335 Communication Law	
0602.410 Problems in Contemporary Journalism	
0602.411 Copy Editing	
<b>III. Related Electives</b>	<b>12 s.h.</b>
0602.313 Magazine Article Writing	
0602.314 Photojournalism	
0602.317 Publication Layout and Design	
0699.363 Communication Field Experience	
364, 365	
1507.290 Creative Writing I	
1507.291 Creative Writing II*	
0601.400 Writing for the Workplace	
0602.420 Newspaper Production Lab	
0603.220 Intro to Electronic Media	
0602.320 Electronic Journalism I: Radio	
0602.305 Electronic Journalism II: TV	

\*Permission of instructor needed to choose Creative Writing II instead of Creative Writing I.

<b>IV. Free Electives</b>	<b>28-29 s.h.</b>
<b>V. Total Credits in Program</b>	<b>120 s.h.</b>

## Minor in Journalism

**Carl D. Hausman, Advisor**  
**Bozorth Hall**  
**856-256-4359**  
**hausman@rowan.edu**

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 performing 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 (1501.111) and College Composition II (1501.112) and achieve an overall 2.5 GPA in order to be admitted to the minor. Communication majors may not minor in journalism.

<b>I. Required Courses</b>	<b>9 s.h.</b>
0601.203 Mass Media and Their Influences	
0602.310 News Reporting I	
0602.318 Journalistic Sources of Information	

<b>II. Electives (choose three)</b>	<b>9 s.h.</b>
0602.311 News Reporting II	
0602.312 Special Journalistic Writing	
0602.313 Magazine Article Writing	
0602.314 Photojournalism	
0602.317 Publications Layout &Design	
0602.411 Copy Editing	
0602.320 Electronic Journalism I: Radio	
0602.305 Electronic Journalism II: TV	
0607.335 Communication Law	

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

## Public Relations/Advertising

**Suzanne Sparks FitzGerald, Chair**

**Bozorth Hall**

**856-256-4265**

**sparks@rowan.edu**

The Public Relations & Advertising Department offers major specializations in public relations and 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 the graduate program leading to an MA 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.

### Public Relations Specialization

**Suzanne Sparks FitzGerald, Advisor**

**Bozorth Hall**

**856-256-4265**

**sparks@rowan.edu**

<b>I. General Education</b>	<b>52-53 s.h.</b>
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Requirements are the same for all Communication students; see page 91.

<b>II. Major Requirements</b>	<b>33 s.h.</b>
0601.203 Mass Media	
0601.300 Communication Theory	
0602.317 Publication Layout & Design	
0604.330 Introduction to Advertising	
0606.353 Case Studies in Public Relations (WI)(Fall)	
0606.350 Introduction to Public Relations	
0606.301 Basic Public Relations Writing	

- 0606.305 Advanced Public Relations Writing and Strategies
- 0606.454 Public Relations Planning (WI)(Spring)
- 0606.360 Public Relations/Advertising Field Experience I
- 0606.362 Public Relations/Advertising Field Experience II
- 0606.364 Public Relations/Advertising Field Experience III
- 0699.361 Introduction to Survey Research

**III. Related Electives 6 s.h.**

Select two courses from the following groups:

*Group 1. Advertising/Marketing/Management*

- 0604.331 Print Media Copywriting
- 0604.432 Media Planning
- 0604.430 Electronic Media Copywriting
- 0604.415 Direct Response Advertising
- 0506.101 Introduction to Management
- 0509.200 Principles of Marketing
- 0509.384 Research Methods in Marketing
- 0509.350 Management of Advertising and Promotion

*Group 2. Communication*

- 0602.310 News Reporting I
- 0602.313 Magazine Article Writing
- 0602.312 Special Journalistic Writing
- 0606.354 Impact of PR on the News
- 0607.335 Communication Law
- 1506.245 Small Group Communication
- 1506.205 Persuasion and Social Influence
- 0699.462 Public Opinion
- 0603.220 Intro to Electronic Media

*Group 3. Professional Skills and Background*

- 0839.386 Electronic Publishing Systems
- 1002.300 Workshop in Comptuer Art
- 0839.330 General Photography
- 1009.351 Computer Art Techniques I (w/permission of instructor)

*Group 4. Professional Background*

- 0506.300 Organizational Behavior
- 0601.403 Field Experience
- 0606.359 Public Relations Practicum
- 1509.110 Logic of Everyday Reasoning
- 1509.250 Introduction to Ethics
- 2005.206 Social Psychology

**IV. Free Electives 28-39 s.h.****V. Total Credits in Program 120 s.h.**

**Advertising Specialization**

**Suzanne Sparks FitzGerald, Advisor**  
**Bozorth Hall**  
**856-256-4265**  
**sparks@rowan.edu**

**I. General Education** **52-53 s.h.**

Requirements are the same for all Communication students; see page 91.

**II. Major Requirements** **33 s.h.**

- 0601.203 Mass Media
- 0601.300 Communication Theory
- 0602.317 Publication Layout & Design
- 0604.330 Introduction to Advertising
- 0604.331 Print Media Copywriting
- 0604.352 Advertising Strategies (Fall)
- 0604.430 Electronic Media Copywriting
- 0604.434 Advertising Campaigns (Spring)
- 0604.432 Media Planning
- 0606.350 Intro to Public Relations
- 0509.200 Principles of Marketing

**III. Related Electives** **6 s.h.***Marketing/Public Relations/Management*

- 0509.372 Retailing
- 0509.376 Marketing & Consumer Behavior
- 0509.378 Product, Price & New Venture
- 0509.382 Sales Force Management
- 0604.415 Direct Response Advertising
- 0604.355 Advertising Practicum
- 0607.335 Communication Law
- 0699.361 Intro to Survey Research
- 0699.360 Public Relations/Advertising Field Experience I
- 0699.362 Public Relations/Advertising Field Experience II
- 0699.364 Public Relations/Advertising Field Experience III

**IV. Free Electives** **28-29 s.h.****V. Total Credits in Program** **120 s.h.**

# **Radio/Television/Film**

**Edgar C. Eckhardt, Chair**

**Bozorth Hall**

**(856)256-4641**

**eckhardt@rowan.edu**

The Department of Radio/TV/Film offers students courses in production, business, history, and the aesthetics of the media industry. Students can select from two tracks within the program.

Radio/TV/Film Production Emphasis. This track is based in the department's state-of-the-art, digital production facilities.

Radio/TV/Film Critical Studies Emphasis. This track explores the structure and content of the media industry.

Students completing either track receive a broad-based liberal arts background and a strong preparation for either the media production industry or advanced media studies.

Outside the classroom, students can practice their specializations in student clubs and organizations, including Cinema Workshop (16mm and digital filmmaking), The Rowan Television Network (Channel 5 The University's Cable Channel), and WGLS-FM, the University's radio station.

The Department of Radio/TV/Film offers an extensive internship program that includes Philadelphia, the Delaware Valley, New Jersey and the New York Metropolitan areas.

## **Radio/Television/Film Specialization - RTF Track A - Production**

### **I. General Education**

**52-53 s.h.**

Requirements are the same for all Communication students; see page 91.

### **II. Major Requirements**

**24 s.h.**

- |          |                                 |
|----------|---------------------------------|
| 0601.203 | Mass Media                      |
| 0601.300 | Communication Theory            |
| 0603.220 | The Television Industry         |
| 0603.224 | Sound Communication             |
| 0603.222 | TV Production I                 |
| 0603.340 | RTF Research & Criticism        |
| 0603.370 | Film Production I               |
| 1010.271 | Film History and Appreciation I |

### **Specialized Electives**

**15 s.h.**

GROUP I: 3 credits from among the following: These should be courses in which the primary emphasis is on business. Such courses may include, but are not limited to:

#### *Business Emphasis:*

- |          |                             |
|----------|-----------------------------|
| 0506.101 | Introduction to Management  |
| 0506.300 | Process of Management       |
| 0506.302 | Management of Personnel     |
| 0509.290 | Marketing Basics            |
| 0509.382 | Salesmanship                |
| 0604.330 | Introduction to Advertising |
| 0604.432 | Media Planning              |
| 0606.350 | Intro to Public Relations   |

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- 0607.335 Communication Law
- 0699.361 Introduction to Survey Research
- 1506.205 Persuasion and Social Influence

GROUP II: 6 credits from among the following: These should be courses in which the primary emphasis is on writing. Such courses may include, but are not limited to:

*Writing Emphasis:*

- 0601.304 Advanced Writing
- 0601.400 Occupational Writing
- 0602.312 Journalistic Writing
- 0602.313 Magazine Article Writing
- 0602.320 Electronic Journalism I: Radio
- 0603.224 Sound Communication
- 0603.393 Film Scenario Writing
- 0603.433 TVProgram Packaging
- 1507.290-1 Creative Writing I or II

GROUP III: 6 credits from among the following courses in techniques, advanced production or professional experience. Such courses may include, but are not limited to:

*Professional and Production Emphasis:*

- 0601.200 Communication Through Literature and Film I
- 0601.201 Communication Through Literature and Film II
- 0602.314 Photojournalism
- 0603.270 TV History & Appreciation
- 0603.271 Film History II
- 0603.272 Images of Women in Film
- 0603.321 TV Production II
- 0603.331 Radio Broadcasting II
- 0603.335 A/V Production Systems
- 0603.350 RTF Studio Practicum
- 0603.351 RTF Field Experience I
- 0603.352 RTF Field Experience II
- 0603.353 RTF Field Experience III
- 0603.371 Film Production II
- 0603.372 American Film Directors
- 0603.373 The Movie Industry
- 0603.470 Advanced Film Production
- 0603.471 Techniques of Documentary Films
- 0603.450 Television Documentary and Field Production
- 0601.405 Independent Study
- 0701.100 Computer Literacy
- 0839.330 General Photography

**III. Free Electives**

**28-39 s.h.**

**IV. Total Credits in Program**

**120.s.h.**

**Radio/Television/Film Specialization - RTF Track B - Critical Studies****I. General Education****52-53 s.h.**

Requirements are the same for all Communication students; see page 91.

**II. Major Requirements****24 s.h.**

- 0601.203 Mass Media
- 0601.300 Communication Theory
- 0603.220 The Television Industry
- 0603.373 The Movie Industry
- 0603.205 TV History and Appreciation
- 1010.270 Film History and Appreciation I
- 0603.340 Radio/TV/Film Research and Criticism
- 0603.420 Current Issues in Electronic Media

**Specialized Electives****12 s.h.**

GROUP I: 6 credits from among the following:

*Writing Emphasis: (includes but is not limited to)*

- 0603.393 Film Scenario Writing
- 0603.433 TV Program Packaging
- 0602.313 Magazine Article Writing
- 0602.312 Journalistic Writing
- 1507.290 Creative Writing
- 0601.400 Writing for the Workplace

GROUP II: 6 credits

*History and Theory Emphasis: (includes but is not limited to)*

- 0603.271 Film History & Appreciation II
- 0603.372 American Film Directors
- 1506.205 Persuasion and Social Influence
- 0603.272 Images of Women in Film
- 0601.402 Special Topics in RTF Studies
- 0601.405 Independent Study
- 0603.224 Sound Communication
- 0603.350 RTF Studio Practicum
- 0603.351 RTF Field Experience I
- 0603.352 RTF Field Experience II
- 0603.353 RTF Field Experience III

**III. Free Electives****28-29 s.h.****IV. Total Credits in Program****120 s.h.**

## Writing Arts

**Janice Rowan, Chair**  
**Hawthorn Hall**  
**(856)256-4096**  
**rowan@rowan.edu**

The Department of Writing Arts administers the required general education courses in writing, College Composition I and College Composition II, for the entire University. The department also houses a Writing Arts Specialization, open to all students, and a Writing Arts coordinate major for Elementary Education and Early Childhood Education majors. Some of the department's other writing courses include Writing for the Workplace; Writing with Style; The Writer's Mind; Writing, Research, & Technology; and Evaluating Writing.

### Communication: Writing Arts Specialization

The Writing Arts Specialization provides a broad-based study of written communication, drawing upon the disciplinary strengths of the College of Communication. The Writing Arts Specialization offers students an important content area to complement any program of study. Courses such as The Writer's Mind; Writing, Research and Technology; and Evaluating Writing enable students to develop a strong foundation in writing. Students learn how a writer composes in print and in new media forms and how audiences evaluate the finished product.

<b>I. General Education</b>	<b>60-62 s.h.</b>
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Except for the Non Program Courses, requirements are the same as for all Communication majors. Students should also refer to the all-university requirements on page 48 of this catalog.

<b>Non Program Courses</b>	<b>15 s.h.</b>
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<b>II. Major Requirements</b>	<b>15 s.h.</b>
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- 0601.203 Mass Media
- 0601.300 Communication Theory
- 1501.301 Writing, Research and Technology
- 1501.401 The Writer's Mind
- 1501.405 Evaluating Writing

<b>III. Related Electives I (select 2)</b>	<b>6 s.h.</b>
--	---------------

- 0601.304 Writing with Style
- 0601.400 Writing for the Workplace
- 0602.210 Journalistic Writing
- 1507.290 Creating Writing I  
*OR*
- 1507.291 Creative Writing II
- 1507.309 Writing Children's Stories

<b>IV. Related Electives II (select 1)</b>	<b>3 s.h.</b>
--	---------------

- 0601.207 Fiction to Film
- 0603.220 Intro to Electronic Media
- 0604.330 Intro to Advertising
- 0606.350 Intro to Public Relations

<b>V. Related Electives III (select 2)</b>		<b>6 s.h.</b>
0602.317	Publication Layout & Design	
1505.380	Linguistics	
1506.206	Interpersonal Communication	
1506.245	Small Group Communication	
<b>VI. Free Electives</b>		<b>30 s.h.</b>
All Elementary Education requirements are used as free electives.		
<b>VII. Total</b>		<b>120/121 s.h.</b>

## Creative Writing Concentration

**Julia Chang, Advisor**  
**Hawthorn Hall**  
**856-256-4500 x3417**  
**chang@rowan.edu**

The Writing Arts Department at Rowan University offers a program of study in creative writing leading to a concentration. To qualify 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 the 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 courses in the Creative Writing Program.

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

- Creation of a manuscript of original work
- Increased awareness of the various modes of literary expression
- More sophisticated appreciation of the craft of writing
- Greater sensitivity to language and its powers
- Deepened understanding of the relationship among the writer, the audience, and the work
- A more definite sense of students' own literary voice and style

Students must complete four additional courses from those listed under the concentration. These courses must be selected in consultation with an advisor. An advisor must attest that the concentration has been completed before it will be listed on a transcript. In addition to taking courses, students develop as writers from working closely with advisors. The catalog lists prerequisites.

- |          |                                      |
|----------|--------------------------------------|
| 1507.290 | Creative Writing I                   |
| 1507.291 | Creative Writing II                  |
| 1507.309 | Writing Children's Stories           |
| 1507.391 | Advanced Creative Writing            |
| 0603.393 | Film Scenario Writing                |
| 1507.395 | Advanced Poetry Writing              |
| 0699.363 | Field Experience in Communication I  |
| 0699.364 | Field Experience in Communication II |
| 0602.313 | Magazine Article Writing             |

# COLLEGE OF EDUCATION

**Carol Sharp, Dean**

**Education Hall**

**856-256-4750**

**sharp@rowan.edu**

**David M. Meyers, Associate Dean**

**Education Hall**

**856-256-4753**

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## Mission

The Rowan University College of Education's primary mission is to provide an intellectually rigorous and challenging environment for preparing to teach, preparing for other education or health-related services, or preparing for leadership in education and selected health-related services. 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 and dispositions to practice, thus promoting professional achievement and personal fulfillment.

## Goals

Rowan University has an historic and unwavering commitment to prepare educators who will demonstrate the knowledge, skills, and dispositions indicative of the potential for outstanding success in their future professional careers. "Educators as Members, Creators, and Facilitators of Learning Communities" 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 document as developed in response to the appropriate national and/or state standards.

## Accreditations

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:

- AAHPERD/NASPE – American Alliance for Health Physical Education, Recreation, and Dance/National Association for Sport and Physical Education.
- ACEI – Association for Childhood Education International
- ACTFL – American Council on the Teaching of Foreign Languages
- ALA/AASL – American Library Association/ American Association of School Librarians
- ASBO – Association of School Business Officials
- CEC – Council for Exceptional Children
- ELCC – Educational Leadership Constituent Council
- IRA – International Reading Association

- NAEYC – National Association for the Education of Young Children
- 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

Moreover, the Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredits the college's athletic training specialization.

## **Programs Offered**

Bachelor's degree programs are available in Collaborative Education (Co-Teach), Health and Exercise Science (Athletic Training and Health Promotion Fitness Management), and the BA in Education (Early Childhood Education, Elementary Education, Subject Matter Education, and Health and Physical Education).

In addition, the College of Education offers non-degree teacher certification programs in Reading, and Teacher of Students with Disabilities (Special Education) and numerous graduate programs.

## **Admission**

Procedures for Admission, Retention and Eligibility for Teacher Certification are described in the following paragraphs.

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. Applications are completed and filed with the certifying department as part of the requirements of the sophomore field experience course. They are reviewed first by the academic department and then by the Office of the Dean. 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. A grade of C or better is required in all course work.

The following four-step process outlines the various requirements that must be addressed by all teacher certification candidates. This outline describes the minimum college requirements. Students should check with their certifying department for specific expectations, departmental requirements and standards.

### **Admission to the University – managed by Admissions Department**

1. Meet University Admission Requirements
2. Declared dual major eligible for certification in the State of New Jersey

### **Acceptance into the certification program (Junior Practicum)**

1. C or higher in "sophomore" course(s) (e.g. Teaching in Learning Communities I & II, Teaching Literacy)
2. Interview by sophomore course instructor(s)
3. Acceptable dispositional report(s) from university instructor(s)
4. Acceptable dispositional report(s) from cooperating teacher(s)
5. Service learning component
6. Passing grade on Praxis I tests (Mathematics, Reading, & Writing)
7. Acceptable score on Portfolio assessment at this Transition Point
8. A minimum of 12 credit hours in content area major (for subject matter specialization only)

## **Acceptance into Clinical Practice (Student Teaching)**

1. Passing grade(s) on State required Praxis II test(s)
2. Average grade of 3.0 in professional courses with no course grade lower than C- and no incompletes
3. Achieve minimum content area GPA as specified by particular College of Education, College of Liberal Arts and Sciences, College of Fine and Performing Arts, College of Business, or College of Communication departments
4. Achieve overall GPA of at least 2.75
5. Interview with specific subject pedagogy specialist
6. Acceptable dispositional report(s) from university instructor(s) and cooperating teacher(s)
7. Acceptable score on Portfolio assessment at this Transition Point reflecting acquisition of content knowledge and planning skills

## **Program Exit**

1. Successful completion of Clinical Practice teaching as documented by:
  - a. Satisfactory rating on final supervisor assessment
  - b. College of Education evaluation forms from supervisor and cooperating teacher
  - c. SPA/NCATE evaluation forms
2. Acceptable score on Portfolio assessment reflecting impact on P-12 student learning
3. Overall GPA of 2.75
4. Average grade of 3.0 in professional courses with no course grade lower than C- and no incompletes
5. Achieve minimum content area GPA as specified by particular Education and Liberal Arts and Sciences departments

## **Departments**

The College of Education is composed of six academic departments. They include:

- Educational Leadership
- Elementary/Early Childhood Education
- Health and Exercise Science
- Reading
- Secondary Education/Foundations of Education
- Special Educational Services/Instruction.

## **Services**

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

- The Office of the Dean
- The Student Services Centers

The Center houses the Office of Field Experiences, Academic Advisors, and the Office of Certification. The staff members in these offices facilitate the placement of all students requiring field experiences in a

school or clinical setting, assist students with the completion of their requirements for graduation, and certification application.

### **The Office of Field Experiences**

Robert W. Kern, Director  
Education Hall  
856-256-4727  
kern@rowan.edu

### **Academic Advisors**

Education Hall  
856-256-4500, ext. 3311

## **The Thomas E. Education Beginning Teacher Induction Center**

The Thomas E. Education Beginning Teacher Induction Center (BTIC) is located in the College of Education. The BTIC offers support services for beginning teachers via seminars, workshops, clinics, a newsletter, mentor training, and individualized problem solving. BTIC professional development opportunities provide a link between preservice and inservice teacher education. Novice teachers have opportunities to interact with field-based practitioners and to network with novice teachers from the eight counties of Southern New Jersey.

## **The John J. Schaub Instructional Technology Center**

The John J. Schaub Instructional Technology Center consists of a Computer Laboratory and an Instructional Materials Laboratory. The 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 Education Institute A Force for Collaborative Leadership in Education**

The purpose of the Education Institute is to provide an administrative structure that supports faculty of the College of Education in scholarly inquiry and creative collaboration with school and community organizations in Southern New Jersey. The primary goal of the Institute is to provide an outreach and service function that matches the needs of local school districts to the resources of the University. In this capacity, the Institute supports basic and applied research and sponsors graduate courses and professional development activities designed to improve the quality of education within the region.

## **Educational Leadership**

**David C. Hespe, Chair**  
**Education Hall**  
**856-256-4702**  
**hespe@rowan.edu**

The Department of Educational Leadership offers no undergraduate degree programs. It offers graduate-level programs for those who aspire to careers in public school administration. Specialized programs are available for the preparation and certification of elementary and secondary school principals, vice principals, assistant superintendents, supervisors, directors, and department chairpersons as well as school business administrators. In addition, the department offers a Master of Arts degree in Higher Education for those desiring preparation for a professional career in higher education, and a Doctor of Education in Educational Leadership for individuals preparing for executive leadership positions in schools and colleges.

The department also houses the undergraduate concentration in Leadership Studies which can be found under Interdisciplinary Concentrations. Students who wish more information on the programs and courses offered by the Department of Educational Leadership are advised to contact the department office.

# **Elementary/Early Childhood Education**

**Robin H. McBee, Chair**  
**Education Hall**  
**856-256-4736**  
**mcbee@rowan.edu**

"Teachers are more than any other class the guardians of civilization." - Bertrand Russell, British Philosopher and Writer

Our nationally accredited elementary and early childhood education programs recognize this impact that teachers have on the future. Our programs are planned for students seeking in-depth preparation to teach in elementary and early childhood classrooms and New Jersey teaching endorsements in grades K-5 or P-3.

In both programs, students complete requirements for two majors: one in education, with a specialization in either elementary education or early childhood education, and one in an approved dual major from the Colleges of Communication, Fine and Performing Arts (elementary only), or Liberal Arts and Sciences. Students must also complete a set of general education requirements. The total number of general education courses is approximately the same; however, specific courses vary according to the dual academic major. Program guides for each dual major are available in the Elementary/Early Childhood Education office or on our web page ([http://www.rowan.edu/colleges/education/departments/elem\\_early\\_childhood/](http://www.rowan.edu/colleges/education/departments/elem_early_childhood/)).

Once accepted into the elementary education major, students plan their programs in consultation with advisors in the elementary or early childhood education programs and with the dual major academic advisors.

A grade of C- or better is required in all courses. Minimum G.P.A in dual majors varies from 2.5 to 3.0; a G.P.A of 3.0 is required in the education major; and a 2.75 is required overall. (Minimum G.P.A.s are subject to increases.)

## **B.A. in Education, Specialization in Elementary Education**

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 nine academic disciplines 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.

## **B.A. in Education, Specialization in Elementary Education**

<b>I. General Education Requirements</b>	<b>61 s.h.</b>
<i>Communication</i>	<i>9-10 s.h.</i>
1501.105 Integrated College Composition or	
1501.111 College Composition I	
1501.112 College Composition II	
1506.202 Public Speaking	
<i>Mathematics and Science</i>	<i>10 s.h.</i>
Physical or Biology Lab Science	
1701.201 Structures of Mathematics	
1701.115 Contemporary Mathematics	

<i>Social and Behavioral Sciences</i>	<i>12 s.h. (Courses may vary depending on dual major)</i>
0808.130 Human Exceptionalities	
2009.209 Child Development	
2206.201 Geography of U.S. and Canada (or approved substitute)	
0821.230 Characteristics of Knowledge Acquisition	
<i>History, Humanities, and Languages</i>	<i>12 s.h.</i>
2205.150 U. S. History to 1865 or 2205.151 U.S. History since 1865	
<i>English Literature</i>	
0830.120 Literacies in Today's World	
<i>Artistic and Creative Expression</i>	<i>3 s.h.</i>
Art, Music or Theatre Arts Elective	
<i>Non-Program Electives</i>	<i>15 s.h.</i>
0835.103 Health and Wellness	
2208.336 Sociology of Education	
<i>Non-lab Science (Biological or Physical)</i>	
0821.150 History of American Education	
2009.209 Elective	
<b>II. Dual Major Requirements</b>	<b>30-42 s.h.</b>
Elementary Education majors may choose one of the following dual majors:	
<i>Child Drama</i>	<i>35 s.h.</i>
<i>English</i>	<i>36 s.h.</i>
<i>Geography</i>	<i>37 s.h.</i>
<i>History</i>	<i>30 s.h.</i>
<i>Liberal Arts: American Studies</i>	<i>36 s.h.</i>
<i>Liberal Arts: Mathematics/Science</i>	<i>33 or 34 s.h.</i>
<i>Mathematics</i>	<i>39 s.h.</i>
<i>Spanish</i>	<i>39 s.h.</i>
<i>Writing Arts: Communications</i>	<i>30 s.h.</i>
<b>III. Professional Major Requirements</b>	
<i>Elementary/Early Childhood Education.</i>	<i>34 s.h.</i>
<i>Curriculum Sequence</i>	
0801.104 Teaching: An Introduction to the Profession	
0801.270 Teaching in Learning Communities I	
0801.272 Teaching in Learning Communities II	

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0830.280	Teaching Literacy
0802.317	Inquiry and Discovery in the Elementary Classroom
0802.318	Practicum: Assessment in Elementary Classrooms
0808.316	Differentiated Instruction in the Inclusive Classroom
0802.336	Mathematics Pedagogy for Elementary Teachers
0802.338	Practicum in Mathematics and Literacy
0830.351	Differentiated Literacy Instruction
0803.350	Teaching Students of Linguistic and Cultural Diversity
0833.420	Educational Technology
0802.448	Clinical Practice in Elementary Education
0802.445	Elementary Education Clinical Seminar

**V. Total Credits for Program****125-135 s.h.**

Only students accepted into the Elementary Education Specialization may enroll in courses with that code.

**B.A. in Education, Specialization in Early Childhood Education**

The B. A. in Education, with Specialization in Early Childhood Education has four required strands of study: 1) General Education courses, 2) Common Education Core 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 three academic disciplines 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.

**B.A. in Education, Specialization in Early Childhood Education****I. General Education Requirements****61 s.h.***Communication**9 s.h.*

1501.105	Integrated College Composition or
1501.111	College Composition I
1501.112	College Composition II
1506.202	Public Speaking

*Science and Mathematics**10 s.h.*

Physical Science
Biology Lab Science
1701.115      Contemporary Mathematics

*Social and Behavioral Sciences (Courses may vary depending on dual major)**12 s.h.*

2207.110	American Government
2206.201	Geography of U.S. and Canada
2208.220	Sociology of the Family
0821.230	Characteristics of Knowledge Acquisition

<i>History, Humanities and Language</i>		12 s.h.
2205.150	U. S. History to 1865	
2205.151	U.S. History since 1865	
0821.150	History of American Education	
1502.113	Readings in U.S. Literature	

<i>Artistic and Creative Experience Bank</i>		3 s.h.
1009.110	Experiencing Art	

<i>Non-Program Courses</i>		15 s.h.
2001.104	Introduction to Psychology: Brain, Mind, and Behavior	
0835.103	Health and Wellness	
0822.215	Educational Psychology	
0601.203	Mass Media and Their Influences	
0808.130	Human Exceptionality	

## **II. Dual Major Requirements** 30-42 s.h.

Early Childhood Education majors may choose one of the following dual majors:

<i>American Studies</i>		33 s.h.
<i>Communication: Writing Arts</i>		30 s.h.
<i>Sociology</i>		33 s.h.

## **III. Professional Major Requirements**

<i>Early Childhood Education.</i>		38 s.h.
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### **Curriculum Sequence**

0823.220	Inquiries in Teaching and Learning
0823.221	Family, Community, and School Relationships
0823.320	Growth and Learning: Birth – 5 years
0830.320	Language Development
0823.320	Growth and Learning K – 3rd Grade
0823.321	Integrating and Adapting Curriculum: Math/Science
0823.430	Observation, Assessment, and Evaluation
0823.431	Integrating and Adapting Curriculum: Across Content Areas
0802.446	Clinical Practice in Early Childhood Education
0802.447	Early Childhood Education Clinical Seminar
0833.420	Educational Technology
0803.350	Teaching Students of Linguistic and Cultural Diversity

## **V. Total Credits for Program** 125-134 s.h.

Only students accepted into the Early Childhood Education Specialization may enroll in courses with the 0823 code.

# Health and Exercise Science

**Richard J Fopeano, Chair**

**Esby Gym**

**(856)256-4785**

**fopeano@rowan.edu**

The Department of Health and Exercise Science prepares professionals who can assume leadership roles in school, community, medical and corporate settings. Major students are persons interested in working with people of varying ages in the areas of health, wellness, human movement, exercise science, physical education, sports medicine and athletic training. Career opportunities include: teaching health and physical education (K-12) in public and private school environments; managing health promotion programs in community, corporate and medical settings, coaching school and recreational athletic teams; and working in sports medicine and allied health settings.

The Bachelor of Arts in Education with Specialization in Teacher Certification in Health and Physical Education is the study of the human body and how and why we move. The department offers three specialized areas of study. A. Health Promotion/Fitness Management, B. Athletic Training and C. Health and Physical Education Teaching Certification. All students complete a 60 semester hour bank of courses in General Education and an academic core (32-37 s.h.) which represents a body of knowledge common to all specializations. Students then select a specialization area which applies this basic knowledge to a specific career track. The upper-level specialization courses are specific and unique to the professional preparation of the student. The number of semester hours vary for each specialization as indicated below.

The department has a two-level admission and retention policy. Students seeking admission into Health and Exercise Science (Transfer = 2.5 GPA) must meet the admission standards established for all Rowan University students. In order to be admitted into and continue with any specialization a student must demonstrate an above-average academic ability (B-level) and be involved in professional-related activities.

Each of the three specializations offered within the Department of Health and Exercise Science provides 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 specialization complete field experiences in both urban and rural settings at different educational levels to include children with special needs. Student athletic trainers work with on-campus, high school and professional sport teams. Health Promotion and Fitness Management internships are completed in corporate wellness facilities, community health agencies, and hospital-based wellness and rehabilitation centers.

## B.A. in Health & Exercise Science: Health Promotion and Fitness Management Specialization

### A. Health Promotion and Fitness Management Specialization

#### *I. General Education*

*60 s.h.*

(determined by specialization a minimum GPA of 2.5 must be maintained; see p. 48 for all-university requirements)

#### *Communications*

*9 s.h.*

1501.111 College Composition I

1501.112 College Composition II

1506.202 Public Speaking

<i>Science and Mathematics</i>		10 s.h.
1306.200	Basic Nutrition	
1605.102	Chemistry for Everyday Life (lab)	
1702.100	Elementary Statistics	
<i>History, Humanities and Language</i>		12 s.h.
1105.101 / 1105.102	2 Spanish language courses or approved alternate	
	Any LIT elective	
	Any M/G elective	
<i>Social and Behavioral Sciences</i>		12 s.h.
0837.210	Consumer Health Decisions	
2001.100	Intro to Psychology: Personal, Emotional and Social Interactions	
0601.203	Mass Media and Influence (recommended, not required)	
1506.206	Interpersonal Communication	
<i>Artistic and Creative Experience</i>		3 s.h.
<i>Non Program Electives</i>		14 s.h.
0701.100	Computer Literacy or equivalent	
0701.200	Computing Environments	
2008.310	Industrial/Organizational Psychology	
2008.220	Personnel Psychology	
<b>II. Major Core</b>		<b>31 s.h.</b>
(a minimum of 2.75 must be maintained) A grade of C or better is required in all courses.		
0835.241	Structures & Functions of the Human Body I	
0835.242	Structures & Functions of the Human Body II	
0835.343	Kinesiology	
0835.345	Exercise Physiology with Lab	
0837.192	Contemporary Health I	
0837.193	Contemporary Health II	
0835.235	Safety, First Aid & Prevention	
0835.352	Technology & Assessment in Health & Exercise Science	
0835.109	Fitness & Adventure Activities	
<b>III. Specialization Courses</b>		<b>30 s.h.</b>
(minimum GPA of 3.0 must be maintained) A grade of C or better is required in all courses.		
0837.310	Foundations of Health Promotion and Fitness Management	
0837.340	Administration of Health Promotion & Fitness Management Programs	
0835.401	Exercise Prescription	
0837.170	Stress Management	
0837.350	Health Behavior	
0837.430	Practicum in Health Promotion and Fitness Management	
0837.453	HP/FM Field Experience	

*Electives - a minimum of 6 s.h. from:*

- 0835.337 Intro to the Allied Health Professions
- 0835.412 Exercise for Special Populations
- 0835.218 Prevention & Care for Athletic Injuries
- 1306.415 Nutrition for Fitness
- 0837.329 Lab/Personal Training Techniques
- Other approved specialization courses

#### **IV. Total Credits in Program**

**121 s.h.**

### **B.A. in Health and Exercise Science: Athletic Training Specialization**

**Douglas P. Mann, Coordinator**

**Esby Gym**

**856-256-4500 ext. 3706**

**mannd@rowan.edu**

The athletic training program is divided into the pre-specialization and formal specialization. Upon entering Rowan University students are automatically enrolled in the pre-athletic training specialization. A secondary application process is in place for acceptance into the formal athletic training specialization, where the student will begin their clinical rotations. The following are the selection criteria for acceptance into the formal specialization at Rowan University. Application to the formal specialization occurs in the spring semester of a pre-specialization student's sophomore year, or spring semester of the first year for transfer students depending upon completion of all prerequisite coursework and application materials. The application process occurs once per academic year in the spring semester. The application criteria for entrance into the program is as follows:

- A minimum of 150 clinical observation hours at Rowan University
- A cumulative average grade of at least 3.0 out of 4.0 on pre-specialization evaluations that are done twice per semester that are based on clinical observation hours
- A current CPR card and First Aid Certification (certification must be at least Adult CPR at the community level and First Aid can be either Basic, Standard, or higher). Please note that students will receive this certification through Rowan Course-work their freshmen and sophomore years.
- An overall Grade Point Average of 2.5 or higher
- Have no grade lower than a C in the Athletic Training Core, the athletic training core that a pre-specialization will take is as follows:

Introduction To Athletic Training

Prevention and Care of Athletic Injuries

Pathology and Evaluation of Athletic Injuries I and II

Advanced Emergency Care

- Have no grade lower than a C- in any other class
- Completion of the following coursework:  
Biology I, General Biology: Human Focus, or Introduction To Psychology  
(Personal, Emotional, and Social)  
Introduction To Athletic Training  
Prevention and Care of Athletic Injuries  
Pathology and Evaluation of Athletic Injuries I and II

Anatomy and Physiology I and II with laboratories  
Safety, First Aid, and Prevention of Athletic Injuries  
Advanced Emergency Care  
Contemporary Health I or II

\*\* During the application process students may be currently enrolled in pre-requisite classes. All pre-requisite classes need to be completed prior to beginning Clinical Experiences in Athletic Training I.

- Complete a Written Application
- Attend Inservices (Must attend all Inservices, pre-specialization students absent from an inservice must provide a written letter to the program director giving a rationale for the absence, the program director will sign acceptable or not acceptable absence on the letter, two non-acceptable absences in one semester will make the pre-specialization student ineligible to apply to the formal specialization (criteria for acceptable absences is published in Athletic Training Student Policy Manual and on syllabi where inservice attendance is part of the course grade).
- Pass a proficiency examination both practical and oral that is based on the athletic training core they have taken since entering Rowan University. An athletic training student must receive an average score of at least 70% on this proficiency examination to enter the formal specialization. Students may take this examination up to three times, upon the fourth failure the student will not be eligible for matriculation to the specialization until the following year. (The application process occurs once per academic year during the spring semester)
- Pass a Health Physical (at Rowan University Student Health Center, please note this is done in the prespecialization and updated each year)
- Complete Technical standards, HBV declination and Confidentiality forms ( Please note this is filled out in the pre-specialization and redone for the formal specialization)
- An interview with the selection committee (An average score of at least 70% is needed to be eligible for entry into the formal specialization. The grading criteria for the interview is as follows:
  - 1) Understanding of Profession- 50%
  - 2) Displaying of Self Confidence- 10%
  - 3) Ability to follow-up questions on written essays- 20%
  - 4) Understanding of Specialization and competencies and proficiencies associated with the program- 10%
  - 5) Ability to ask pertinent questions of interview committee- 10%

Our maximum capacity is 15 students for junior level admission which is based on the number of clinical instructors. Students are rank ordered and the highest rated students are accepted into the professional program. The score for rank ordering are calculated as follows:

- 1) GPA- 40%
- 2) Clinical Evaluations-40%
- 3) Interview-10%
- 4) Proficiency Examination-10%

All scores are converted to a percentage based on 100% and the average score is taken.

Once in the formal athletic training specialization the following criteria must be met to satisfy program retention and graduation requirements: A GPA of 2.50 or higher, Major GPA of 2.75 or higher, Specialization GPA of 3.00 or higher. No grade lower than a C in the athletic training core and no grade lower than a C- in any other class. Please see major core classes and specialization core classes listed in program requirements section of this catalog. The student will also need completion of the four content areas within Clinical Education. These areas include an upper extremity, lower extremity, equipment intensive, and general medical rotation which is assigned in conjunction with academic coursework.

The following technical standards are signed in the first athletic training class, prior to athletic training students performing any clinical duties.

The Athletic Training Educational Program at Rowan University is a rigorous and intense program that places specific requirements and demands on the students enrolled in the program. An 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 Educational 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 of the program's accrediting agency (Commission on Accreditation of Allied Health Education Programs [CAAHEP]). The following abilities and expectations must be met by all students admitted to the Athletic Training Education 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 the NATABOC certification exam.

Candidates for selection to the Athletic Training Educational Program must demonstrate:

1. the mental 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. effective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

**B. Athletic Training Specialization****I. General Education Requirements****59 s.h.***Communications**9 s.h.*

- 1501.111 College Composition I  
 1501.112 College Composition II  
 1506.202 Public Speaking

*Science and Mathematics**11 s.h.*

- 0410.212 Anatomy and Physiology I  
 1905.102 Chemistry for Everyday Life (lab)or  
 1906.100 Chemistry I  
 1702.100 Elementary Statistics

*History, Humanities & Language**12 s.h.*

- H/H/L Lit Choice  
 H/H/L (W/I) Choice  
 H/H/L (M/G or language)  
 H/H/L Choice

*Social and Behavioral Sciences**12 s.h.*

- 2009.210 Adolescent Development  
 2001.100 Intro to Psychology: Personal, Emotional and Social Interactions  
 SBS choice (M/G not Psych)  
 SBS choice (M/G)

*Artistic and Creative Experience**3 s.h.*

- Fine arts choice

*Non Program Electives**15 s.h.*

- 0701.100 Computer Literacy (option to test out)  
 0401.100 Biology I with Lab or  
 0401.113 General Biology: Human Focus  
 0410.212 Anatomy and Physiology II  
 1902.202 Physics I or  
 1902.105 Physics for Everyday Life

**II. Major Core****25 s.h.**

(a minimum of 2.75 must be maintained)

A grade of C- or better is required in all courses.

- 0835.343 Kinesiology  
 0835.345 Exercise Physiology with Lab  
 0837.192 Contemporary Health I  
 0837.193 Contemporary Health II  
 0835.235 Safety, First Aid & Prevention  
 0835.352 Technology & Assessment in Health & Exercise Science  
 0835.109 Fitness & Adventure Activities  
 1306.200 Basic Nutrition

**41 s.h.****III. Specialization Courses**

(minimum GPA of 3.0 must be maintained)

A grade of C or better is required in all courses

- 0835.105 Intro to Athletic Training  
 0835.218 Prevention and Care of Athletic Injuries  
 0835.219 Pathology & Evaluation of Athletic Injuries I  
 0835.220 Pathology & Evaluation of Athletic Injuries II  
 0835.401 Exercise Prescription  
 0835.334 Advanced Emergency Care  
 0835.478 Therapeutic Exercise for Athletic Injuries  
 0835.475 Therapeutic Modalities for Athletic Injuries  
 0835.338 Clinical Experience in Athletic Training I  
 0835.339 Clinical Experience in Athletic Training II  
 0835.340 Clinical Experience in Athletic Training III  
 0835.341 Clinical Experience in Athletic Training IV  
 0835.405 Organization & Administration of Athletic Training  
 1306.415 Nutrition for Fitness  
 0835.430 Senior Seminar in Athletic Training  
 0835.479 General Medicine & Pharmacology in Athletic Training

**IV. Total Credits in Program****125 s.h.****B.A. in Health and Exercise Science: Teacher Certification Specialization****C. Teacher Certification Specialization****I. General Education Requirements****60 s.h.**

(a minimum GPA of 2.5 must be maintained; see p. xx for all-university requirements)

*Communications**9 s.h.*

- 1501.111 College Composition I  
 1501.112 College Composition II  
 1506.202 Public Speaking

*Science and Mathematics**10 s.h.*

- 1306.200 Basic Nutrition  
 1702.100 Elementary Statistics  
 0401.113 Lab Science Human Focus

*History, Humanities and Language**12 s.h.*

- 0821.150 History of American Education

*Social and Behavioral Sciences**12 s.h.*

- 2009.209 Child Development

*OR*

- 2009.210 Adolescent Development  
 2001.100 Intro to Psychology: Personal, Emotional and Social Interactions  
 2208.120 Intro to Sociology  
 0837.210 Consumer Health Decisions

<i>Artistic and Creative Experience</i>		<i>3 s.h.</i>
1008.135 Elements of Dance		
<i>Non Program Electives</i>		<i>14 s.h.</i>
0822.215 Computer Literacy or equivalent		
0822.215 Educational Psychology		
<b>II. Major Core</b>		<b>30 s.h.</b>
(a minimum of 2.75 must be maintained)		
A grade of C or better is required in all courses.		
0835.241 Structures & Functions of the Human Body I		
0835.242 Structures & Functions of the Human Body II		
0835.343 Kinesiology		
0835.344 Exercise Physiology w/o Lab		
0837.192 Contemporary Health I		
0837.193 Contemporary Health II		
0835.235 Safety, First Aid & Prevention		
0835.352 Technology & Assessment in Health & Exercise Science		
0835.109 Fitness & Adventure Activities		
<b>III. Specialization Courses</b>		<b>26 s.h.</b>
(minimum GPA of 3.0 must be maintained)		
A grade of C or better is required in all courses.		
0835.286 Foundations of Teaching Health & Physical Education		
0835.270 Movement Fundamentals and Motor Learning		
0837.453 Health Program Planning		
0835.342 K-12 Physical Education Curriculum and Instruction		
0835.452 Adapted Physical Education		
0835.205 Teaching Concepts of Team Sports		
0835.231 Teaching Concepts of Individual and Dual Sports		
0835.336 Elementary School Physical Education Activities		
0835.228 Rhythmic Activities Forms		
<b>IV. Professional Certification Courses</b>		<b>17 s.h.</b>
0801.101 Teaching as a Profession		
0830.310 Teaching Reading		
0835.392 Junior Field Experience		
0835.460 Student Teaching		
0835.461 Student Teaching		
0835.465 Senior Seminar		
<b>V. Total Credits in Program</b>		<b>135 s.h.</b>

# Interdisciplinary Co-Teach Program

**Paul James Fitch, Coordinator**

**Education Hall**

**(856) 256-4500, ext. 3733**

**fitch@rowan.edu**

Co-Teach is a five-year program that combines undergraduate preparation in education and the liberal arts with graduate study that leads to certification in elementary and special education. It also includes an option for certification in reading.

Co-Teach was designed to prepare teachers for the diverse classrooms that have become the norm in the 21st century. Students with a range of learning abilities are increasingly being taught in the same classroom, often by two or more teachers working together. The Co-Teach program was designed to prepare prospective teachers for this new reality.

Students completing the program earn a Bachelor of Arts degree in a liberal arts field (American Studies) as well as in Collaboration Education. In addition, they earn a master's degree.

Students in the program are part of a cohort group that study together as a learning community. Many of the courses will be co-taught by faculty from different departments. Field experiences are also an integral part of the program.

Once admitted to the major, students must apply for admission to the certification program at the end of the sophomore year. An overall grade point average (GPA) of 2.5, a professional GPA of 3.0, and qualifying scores on the Praxis I:PPST are required for admission to the certification program. To complete the five-year program, students must apply to The Graduate School at the end of their fourth year for admission into the Collaborative Teaching Program which will lead to a Master of Science in Teaching degree. Students must have maintained an overall GPA of 2.75 and a professional GPA of 3.0 to be admitted to the fifth year component. Also the appropriate scores on the Praxis II exam and the Graduate Record Exam (GRE) must be attained. The GRE exam will be waived for students who maintain a GPA of 3.5 or better.

## Bachelor of Arts/Master of Science in Teaching

I. General Education	61 s.h.
<i>Communications Bank</i>	9 s.h.
1501.105 College Composition I	
1501.111 College Composition II	
1506.202 Public Speaking	
<i>Science and Mathematics Bank</i>	10 s.h.
1701.115 Contemporary Math	
1701.201 Structures of Math	
Lab Science Choice	
<i>Social and Behavioral Sciences Bank</i>	12 s.h.
2206.201 Geography of US/Canada	
2207.110 American Government	
2208.120 Introduction to Sociology	
2009.209 Child Development	

<i>History, Humanities and Language Bank</i>		12 s.h.
0821.150 History Of American Ed		
2205.150 Us History To 1865		
2205.151 Us History Since 1865		
1502.113 Readings In Us Literature		
<i>Artistic and Creative Experience Bank</i>		3 s.h.
1003.131 History Of American Art		
<i>Non Program Electives</i>		15 s.h.
2001.100 Intro to Psych: PES		
2001.104 Intro to Psych: BMB		
0835.103 Health & Wellness		
0822.215 Educational Psychology		
1510.210 Religion in America		
<i>OR</i>		
Western Civilization		
<b>II. Liberal Arts major</b>		<b>36 s.h.</b>
<b>III. Education major</b>		<b>31 s.h.</b>
0801.102 Learning Communities (Fall, freshman)		
0801.103 Foundations of Education (Spring, freshman)		
0808.110 Introduction to Special Education (Fall, sophomore)		
0801.200 Literacy, Learning and Curriculum (Spring, sophomore)		
0801.300 Instructional Planning and Collaboration (Fall, jr)		
0801.301 Instructional Implementation and Collaboration (Spring, junior)		
0801.401 Developing and Adapting Instruct in El Class (Fall, senior)		
0801.402 Developing and Adapting Assessment for All Learners (Fall, senior)		
0837.209 Health Education for Elementary School Teachers (Fall, senior)		
0801.400 Teaching in Inclusive Classrooms (Spring, senior)		
<b>Four-year Total</b>		<b>127 s.h.</b>
<b>IV. M.S.T. in Collaborative Teaching</b>		<b>36 s.h.</b>
0826.597 Institutions and Agencies (Summer 1)		
0827.572 School Law and Public Policy (Summer 1)		
0810.581 Teaching Strategies for Managing Behavior (Fall)		
0801.601 Clinical Internship I (Fall)		
0801.603 Clinical Seminar I (Fall)		
0824.502 Initiation of Internship Project (Fall)		
0824.565 Analysis and Application of Research (Fall)		
0830.530 Teaching Reading to the Exceptional Child (Spring)		
0801.605 Clinical Internship II (Spring)		
0801.607 Clinical Seminar II (Spring)		
0824.602 Development of Internship Project (Spring)		
0821.504 Foundations of Cross Cultural Education (Summer 2)		
0824.608 Internship Project Report (Summer 2)		
<b>Five-year Total</b>		<b>163 s.h.</b>
<b>Optional Reading Certification</b>		<b>9 s.h. (summer)</b>

# **Reading**

**Cindi Hasit, Chair**  
**Education Hall**  
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**hasit@rowan.edu**

The Reading Department offers the required reading courses for all undergraduate teacher education programs. While the department does not offer an undergraduate major course of study, it offers an undergraduate endorsement program which leads to a Teacher of Reading Certificate. Students in this program must complete the requirements for the endorsement in addition to the requirements in a chosen education major course of study.

## **Reading Requirements for All Teacher Certification Candidates**

### **Reading Requirements**

Candidates for teacher certification are required to have coursework in reading. The courses they must complete are determined by specific certification program requirements which may include the following:

- 0830.120 Literacies in Today's World
- 0830.280 Teaching Literacy
- 0830.351 Differentiated Literacy Instruction
- 0830.320 Language Development, Emergent Literacy & Reading in Young Children

Students should consult certification program advisors.

### **Teacher of Reading Endorsement**

An endorsement program that leads to certification as a Teacher of Reading is available to students who have been admitted to teacher certification programs or who already hold New Jersey teaching certificates. 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, have a minimum grade of B in all reading courses, and have an overall GPA of at least 3.0 (based on 30 semester hours). The program requires students to successfully complete 30 semester hours of coursework in reading and reading-related areas to obtain Teacher of Reading Certification. Courses are selected from three different categories as noted below. Two courses (Category B) require students to tutor in reading. Students who are admitted to the Co-Teach program and Early Childhood Education program should consult with their advisors regarding specific requirements.

#### **Category A: Basic Reading Methods Courses (4-7 courses)**

Students must select a minimum of 4 courses from this bank.

\*\*means that a prerequisite is required; check catalog course description.

- 0830.280 Teaching Literacy \*\*
- 0830.351 Differentiated Literacy Instruction \*\*
- 0802.338 Practicum in Mathematics and Literacy \*\*
- 0830.347 Phonics and Spelling in the Reading/Writing Classroom\*\*
- 0830.350 Using Children's Literature in the Reading/Writing Classroom\*\*

## **Category B: Clinic Courses (2-4 courses)**

Students are required to complete both courses in this bank. (Courses include a tutoring component).

0830.421 School Reading Problems-WI\*\*

0830.451 Supervised Clinical Practice in Reading\*\* (Admittance to this course requires program advisor's signature).

## **Category C: Reading Related Courses**

Students select a maximum of 4 courses from this bank.

0830.120 Literacies in Today's World

0808.130 Human Exceptionality

0821.130 Characteristics of Knowledge Acquisition

0802.350 Educational Studies II: Problems of Practice

0808.230 Language and Cognition of Students with Special Needs

0808.307 Assessing Students with Special Needs

0822.215 Educational Psychology

0822.320 Learning and Behaviorism

*OR*

2002.308 Research in Learning and Behaviorism-WI

1501.401 The Writer's Mind

1505.280 Semantics

1505.380 Linguistics

1506.105 Voice and Articulation

2001.327 Cognitive Psychology

*OR*

2001.327 Research in Cognitive Psychology-WI

2006.300 Psychological Tests and Measurements

2009.209 Child Development

NOTE: Candidates for Reading Teacher Certification in the State of New Jersey must pass the Praxis II Specialty Area Test: Introduction to the Teaching of Reading.

## **Secondary Education/Foundations of Education**

**Holly G. Willett, Chair**

**Education Hall**

**856-256-4561**

**willett@rowan.edu**

## **K-12 Subject Matter Teaching Program**

The New Jersey Department of Education no longer certifies teachers to teach solely at the secondary level. The K-12 Subject Matter Teaching Program meets current certification requirements for teaching a single subject to all grades, elementary through high school. Designed for the student with a primary major within the College of Liberal Arts and Sciences, the College of Fine and Performing Arts or the College of Business, this program provides the student the opportunity to pursue teacher preparation and certification concurrently with the academic major. In addition to their academic major, students graduate with the BA in Education with Subject Matter Specialization. The K-12 Subject Matter Teaching Program has been designed to reflect the state-of-the-art knowledge base in teacher education. Many courses require field experiences in nearby public schools.

**Certification specializations include:**

art, music, general business, chemistry, physics, physical science, biological science, English, social studies (history), Spanish, mathematics, and theatre/speech/dramatic arts. Certification in foreign languages other than Spanish is available at the post-baccalaureate level only.

**BA in Education: Specialization in K-12 Subject Matter Education**

Admission to Rowan University does not guarantee admission to the Subject Matter Teaching Certification Program. Because of recent changes in the program, interested applicants must contact the advisor for current information on the admissions process. Maintaining good grades is the most important preparation for admission to K-12 Subject Matter Teaching. Applicants should have a grade point average (GPA) of at least 3.0 in their academic major and professional major courses and an overall GPA of 2.5. Due to staffing and labor market constraints, each subject area admits only 25 students per year. For most majors, we are able to admit all qualified students. However, admission to English and social studies is highly competitive and based on GPA.

Starting in the freshman year and extending through the senior year, students complete a series of courses with field experience components in the public schools.

The subject matter teaching program requirements vary from major to major, according to the instructional competencies set forth by the New Jersey Department of Education. Students MUST consult with their academic major advisors regarding program and degree requirements and with the certification advisor in the Department of Secondary Education/Foundations of Education regarding certification requirements.

The complex and extensive requirements of the subject matter certification program may make it difficult for some students to complete this program in eight semesters. Some students may find it convenient to enroll in summer classes or complete program requirements after graduation, as a rematriculated or post-baccalaureate certification student.

**Program requirements:****I. General Education****60 s.h.**

Regardless of major, all students wishing candidacy in the secondary school teaching program must complete at least 60 s.h. of General Education. This component should include coursework in oral and written communications, science and mathematics, social and behavioral sciences, history, humanities and language, and fine and performing arts.

For more information on specific General Education requirements for your major, you must contact the K-12 Subject Matter student advisor and/or your major advisor. The course guide sheets are designed for each major.

**II. K-12 Subject Matter Education Requirements (30 credits)**

(Prerequisite for licensing 3 credits) Teaching: An Introduction to the Profession course (0801.104)

The (30 credits) K-12 Subject Matter Education courses are as follows:

Teaching in Learning Community I (TLC I) (0801.270)

Teaching in Learning Community II (TLC II) (0801.272)

Teaching Literacy (0830.280)

Teaching and Learning A (content)

(Each major has its own hegis #)

Teaching and Learning B (content)

(Each major has its own hegis #)

Practicum A (0803.330)

Practicum B (0803.332)

Differentiating Instruction (0808.316)

Teaching Students Cult. and Ling. Diversity (0803.350)

Subject Matter Clinical Practice (Student Teaching) (0803.435)

Subject Matter Clinical Seminar (0803.436)

Educational Technology (0833.420)

### **III. Academic Major**

Students must complete all requirements for the bachelor's degree in their academic major.

Each major requires a minimum of 30 or more specific credits that must be met. Again, see your advisor(s) for the specific course guide sheet. These course guide sheets are combined and designed to indicate all of the specific courses required to receive two degrees, one in your Major and the other in your K-12 Subject Matter Education area.

## **Post Baccalaureate Certification**

### **Post Baccalaureate Certification in K-12 Subject Matter Teaching**

This non-degree program is designed for the college graduate wishing certification in a single subject area for the purpose of teaching elementary through high school. Specializations are available in art, music, general business, biological science, physical science, English, foreign languages, mathematics and social studies.

Requirements for admission include the minimum of a bachelor's degree from an accredited college or university, the completion of a comprehensive general education, an overall grade point average of 2.75 and a grade point average of at least 3.0 in certification specialty. Post-baccalaureate applicants must pass the Praxis I test before they can be admitted. Currently, seminars are conducted throughout the year to provide more detailed information for the certification process. Please call 856-256-4755 for more information on the seminars.

# Special Education Services/Instruction

**Donna Hathaway Cook, Chair**  
**Education Hall**  
**856-256-4745**  
**hathaway@rowan.edu**

Dual Certification and Post-Baccalaureate Endorsement in Special Education: Teacher of Students with Disabilities

**Margaret Shuff, Coordinator**  
**Education Hall**  
**856-256-4500 ext. 3883**  
**shuff@rowan.edu**

This program replaces the former Teacher of the Handicapped Program and the Post-Baccalaureate Certificate in Special Education (Teacher of the Handicapped) with a new program that incorporates the coursework required for state endorsement. This endorsement, Teacher of Disabilities, is available to those candidates who already hold (or qualify for) an initial teaching certificate.

## Program Configuration:

<b>I. General Education</b>	<b>3 s.h.</b>
0808.130 Human Exceptionality (should have been taken with initial certification)	3 s.h.
<b>II. Special Education Major</b>	<b>27 s.h.</b>
<b>A. Core Curriculum in Special Education</b>	<b>17 s.h.</b>
0830.280 Teaching Literacy	3 s.h.
0803.420 Integrated Educational Technology into Teaching	1 s.h.
0808.307 Assessment of Students with Exceptional Learning Needs	3 s.h.
0808.360 Positive Behavioral Support Systems for Students with Exceptional Learning Needs	3 s.h.
0808.308 Assistive Technology & Transition Planning for Students with Exceptional Learning Needs	3 s.h.
0830.351 Differentiated Literacy Instruction	2 s.h.
0808.316 Differentiated Instruction in the Inclusive Classroom	2 s.h.
<b>B. Specialization Courses</b>	<b>3 s.h.</b>
0808.415 Specialized Instruction for Students with Exceptional Learning Needs I <i>OR</i>	3 s.h.
0808.416 Specialized Instruction for Students with Exceptional Learning Needs II	3 s.h.
<b>III. Professional Preparation</b>	<b>4 s.h.</b>
0808.445 Clinical Seminar in Special Education	1 s.h.
0808.450 Clinical Practice in Special Education	3 s.h.
<b>IV. Total Credits in Program</b>	<b>27 s.h.</b>

## **Post-Baccalaureate School Nurse Certification Program**

**Marie Cammarota, Coordinator and Program Advisor**  
**Education Hall**  
**856-256-4705**  
**cammarota@rowan.edu**

This program is in concert with the course of study required by the N.J.A.C. 6A:9-13.3 for a School Nurse Endorsement. It requires a current New Jersey Registered Professional Nurse license issued by the N.J. State Board of Nursing, a baccalaureate degree from an accredited college or university, and current certificates in cardiopulmonary resuscitation (CPR) and automated external defibrillators (AED). It also requires matriculation into the post-baccalaureate school nurse program.

The total semester hours required for completion of this program of study is 36 sh. which includes 18 prerequisite credits. The prerequisites for advance standing may be presented from a fully accredited college or university.

Prerequisites for this program are:

- Community Health Nursing (3 sh.)
- Adolescent/Child/Human Development (3 sh.)
- Human and Intercultural Relations (3sh.)
- Health Assessment (3 sh.)
- Teaching: An Introduction to the Profession or School Law (3 s.h.)
- Special Education/Human Exceptionality (3 s.h.)

### **Curriculum:**

0892.466	School Health Services	3 s.h.
0892.444	Practicum in School Nursing*	5 s.h.
0892.430	Methods and Materials in Health Teaching for School Nurses	3 s.h.
0892.448	Health Teaching Methods for School Nursing Seminar**	2 s.h.
0892.445	Internship in Health Teaching for School Nursing**	5 s.h.

<b>Rowan Total</b>	<b>18 s.h.</b>
<b>Prerequisite Total</b>	<b>18 s.h.</b>
<b>Total</b>	<b>36 s.h.</b>

\*Prerequisite: School Health Services

\*\*Prerequisite: Methods and Materials in Health Teaching for School Nurses

Students must have an overall GPA of 2.75. A 3.0 GPA in the major certification/professional courses must be maintained to progress in the certification program. (Please refer to the Rowan Undergraduate Catalog for further clarification).

### **Sequencing for School Nursing courses:**

- Semester 1 School Health Services
- Semester 2 Practicum and School Nursing Methods and Materials in Health Teaching for School Nurses
- Semester 3 Health Teaching Methods for School Nursing Seminar and Internship in Health Teaching for School Nursing

### **Teaching for School Nursing**

All school nursing major requirements are offered in the spring and fall semesters.

# COLLEGE OF ENGINEERING

**Dianne Dorland, Dean**

**Rowan Hall**

**856-256-5300**

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**Steven Chin, Associate Dean**

**Rowan Hall**

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## Mission

The mission of the College of Engineering is to provide programs that respond effectively to regional aspirations and address the needs and 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 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 and national 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.

## Accreditations

All four engineering programs (Chemical, Civil, Electrical & Computer, and Mechanical) are accredited by the Accreditation Board for Engineering and Technology. 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 program demonstrate that the 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 four programs leading to bachelor of science degrees in chemical, civil, electrical and computer, and mechanical engineering. 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:

- Fr Clinic I, II (Rowan Seminar experience is embedded in Fr Clinic)
- College Composition I
- Calculus I, II
- Physics I (calculus based)
- Advanced College Chemistry I
- Computer Science (see major requirements for specific course)

## Chemical Engineering

**Robert P. Hesketh, Chair**

**Rowan Hall**

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**hesketh@rowan.edu**

## Chemical Engineering

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.

## Program Goals

Goal 1 - Develop students who understand and apply the core scientific, mathematical, and engineering principles that form the basis of chemical engineering.

Goal 2 - Develop students who work individually and in diverse teams and effectively utilize advanced technology to solve complex engineering problems.

Goal 3 - Develop students who gain a perspective on the role of engineering in society including the importance of ethics, professional responsibility, lifelong learning, safety, and the environment.

Goal 4 - Develop students who communicate their ideas effectively in various formats to both technical and non-technical audiences.

## Mission Statement

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 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 building effective teamwork and communication skills. 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.

## B.S. in Chemical Engineering

**Robert P. Hesketh, Advisor**

**Rowan Hall**

**856-256-5310**

**hesketh@rowan.edu**

## Program Requirements

I. General Education	45-47 s.h.
<i>Communication</i>	3-4 s.h.
1501.111 College Composition I (College Composition II and Public Speaking are integrated into Sophomore Engineering Clinic I* and II*, respectively)	
<i>Mathematics And Science</i>	16 s.h.
1701.130 Calculus I 1701.131 Calculus II 1906.105 Adv. College Chemistry I 1906.106 Adv. College Chemistry II	
<i>History, Humanities and Languages</i>	6 s.h.
Approved HHL Course Approved HHL Course	
<i>Social and Behavioral Sciences</i>	6 s.h.
2204.102 Microeconomics Approved SBS Course	
<i>Artistic and Creative Experience</i>	3 s.h.
Approved ACE Course	
<i>Non-Program Courses</i>	11-12 s.h.
1902.200 Physics I 0704.103 Computer Science and Programming or 0701.102 Introduction to Programming 0401.210 Biological Systems and Applications	

**II Major Requirements** **86 s.h.**

0901.101	Freshman Engineering Clinics I (2 s.h.)
0901.102	Freshman Engineering Clinics II (2 s.h.)
0901.201	Sophomore Engineering Clinic I (3 s.h.*)
0901.202	Sophomore Engineering Clinic II (3 s.h.*)
0906.201	Principles Chemical Processes I (2 s.h.)
0906.302	Principles Chemical Processes II (2 s.h.)
1701.235	Math for Engineering Analysis I (4 s.h.)
1701.236	Math for Engineering Analysis II (4 s.h.)
0901.341	Fluid Mechanics I (2 s.h.)
1907.200	Organic Chemistry I (4 s.h.)
0906.309	Process Fluid Transport (2 s.h.)
0906.311	Heat Transfer Processes (2 s.h.)
0906.312	Equilibrium Staged Operations (2 s.h.)
0906.310	Chemical Engineering Thermodynamics (3 s.h.)
0901.301	Junior Engineering Clinics I (2 s.h.)
0901.302	Junior Engineering Clinics II (2 s.h.)
0901.281	Materials Science (2 s.h.)
0906.316	Chemical Reaction Engineering (4 s.h.)
1908.400	Physical Chemistry I (3 s.h.)
0906.314	Separation Processes (4 s.h.)
0906.402	Transport Phenomena (3 s.h.)
0906.403	Unit Operations Lab I (2 s.h.)
0906.404	Unit Operations Lab II (2 s.h.)
0906.405	Process Dynamics and Control (3 s.h.)
0901.401	Senior Engineering Clinics I (2 s.h.)
0901.402	Senior Engineering Clinics II (2 s.h.)
0906.401	Chemical Process Component Design (4 s.h.)
0906.406	Chemical Plant Design (3 s.h.)
*0901.201	Sophomore Engineering Clinics I (lab component; 1 s.h.)
*0901.202	Sophomore Engineering Clinics II (lab component; 1 s.h.)
	Approved Chemical Engineering Electives I and II (6 s.h.)
	Approved Advanced Chemistry Elective (3 s.h.)

**III. TOTAL CREDITS IN PROGRAM****131 s.h.**

# Civil and Environmental Engineering

**Ralph A. Dusseau, Chair**  
**Rowan Hall**  
**(856) 256-5320**  
**dusseau@rowan.edu**

## Civil Engineering

Civil Engineering includes all aspects of the planning, design, evaluation, construction, and maintenance of the infrastructure of modern life. This includes buildings, bridges, highways and airports, water and waste treatment facilities, dams and flood control, off-shore structures, rocket launch pads, space stations, communication towers and many other engineering works. The curriculum is designed to prepare students to enter this broad field.

## Program Goals

Rowan Civil Engineering graduates will be: 1) Knowledgeable engineers, versed in multiple areas of the civil engineering profession, who remain current during their professional careers; 2) Problem-solvers, who can collect and utilize needed information to reach creative and realistic solutions to engineering problems; 3) Well rounded engineers who understand their professional, ethical, and global/social responsibilities and are able to work in multidisciplinary and diverse groups; and 4) Communicators, who are able to disseminate information to professional and lay audiences.

## Mission Statement

The Civil Engineering Program strives to prepare students for professional careers by providing a broad-based civil engineering education through a rigorous curriculum including hands-on laboratory and design experiences integrated throughout. The program is committed to the integration of teaching, research, scholarly, and service activities within a collaborative educational environment as part of its students' preparation for both engineering practice and graduate school. The program endeavors to produce graduates ready to communicate their ideas in a diverse and multidisciplinary workplace.

## B.S. in Civil Engineering

**Ralph A. Dusseau, Advisor**  
**Rowan Hall**  
**856-256-5320**  
**dusseau@rowan.edu**

## Program Requirements

I. General Education	45-46 s.h.
<i>Communications</i>	3-4 s.h.
1501.111 College Composition I (College Composition II and Public Speaking are integrated into Sophomore Engineering Clinic I and II, respectively)	
<i>Science and Mathematics</i>	8 s.h.
1701.130 Calculus I 1906.105 Adv. College Chemistry I	
<i>History, Humanities and Languages</i>	6 s.h.
Approved HHL Courses Approved HHL Courses	

<i>Social and Behavioral Sciences</i>		<i>6 s.h.</i>
2204.102 Microeconomics Approved SBS Course		

<i>Artistic and Creative Experience</i>		<i>3 s.h.</i>
Approved ACE Course		

<b>Non Program Courses</b>		<b>19 s.h.</b>
1701.131 Calculus II		
1902.200 Physics I		
0704.103 Computer Science and Programming		
1906.106 Adv. College Chemistry II		
1702.260 Statistics I		

<b>II. Major Requirements</b>		<b>86 s.h.</b>
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0908.382 Structural Analysis and Design (3 s.h.)
0908.383 Analysis and Design of Steel Frames (3 s.h.)
0908.311 Environmental Engineering I (3 s.h.)
0908.312 Environmental Engineering II (3 s.h.)
0908.301 Civil Engineering Materials (2 s.h.)
0908.342 Water Resources Engineering (3 s.h.)
0908.351 Geotechnical Engineering (3 s.h.)
0908.305 Civil Engineering Systems (2 s.h.)
0908.361 Transportation Engineering (3 s.h.)
0908.203 Surveying & Engineering Graphics (3 s.h.)
0908.491 Civil Engineering Design Project I (2 s.h.)
0908.492 Civil Engineering Design Project II (2 s.h.)
0908.490 Civil Engineering Practice (1 s.h.)
1701.235 Math for Engineering Analysis I (4 s.h.)
1701.236 Math for Engineering Analysis II (4 s.h.)
0901.101 Freshman Engineering Clinics I (2 s.h.)
0901.102 Freshman Engineering Clinics II (2 s.h.)
0901.201 Sophomore Engineering Clinic I (4 s.h.)
0901.202 Sophomore Engineering Clinic II (4 s.h.)
0901.301 Junior Engineering Clinics I (2 s.h.)
0901.302 Junior Engineering Clinics II (2 s.h.)
0901.401 Senior Engineering Clinics I (2 s.h.)
0901.402 Senior Engineering Clinics II (2 s.h.)
0901.271 Statics (2 s.h.)
0901.272 Solid Mechanics (2 s.h.)
0901.281 Material Science (2 s.h.)
0901.291 Dynamics (2 s.h.)
0901.341 Fluid Mechanics I (2 s.h.)
Civil Engineering Electives (4) (3 s.h. each)
Technical Elective (3 s.h.)

<b>III. Total Credits in Program</b>		<b>131 s.h.</b>
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# Electrical and Computer Engineering

**John L. Schmalzel, Chair**

**Rowan Hall**

**856-256-5330**

**[schmalzel@rowan.edu](mailto:schmalzel@rowan.edu)**

Electrical and Computer Engineering uses principles drawn from physics and allied sciences in combination with a broad range of mathematics to analyze and develop components and systems made up of those components. Applications of such engineered systems can be found in many familiar areas such as audio, computer, control, integrated electronics, manufacturing, navigation, networks, power, telecommunications, and video. To prepare students to contribute in this rapidly evolving field, the curriculum begins with foundation courses in science, mathematics, and engineering sciences. Core and elective courses provide breadth and depth in electrical and computer engineering. Additional inter- and multi-disciplinary experiences in design centered courses and clinics provide a unique opportunity to integrate the students' theoretical background into the solution of practical engineering problems.

## Program Goals

1. Create effective engineers
2. Cultivate capable communicators
3. Instill entrepreneurial spirit
4. Develop agile technologists
5. Facilitate multidisciplinary discourse
6. Sensitize to contemporary issues
7. Impart essential ECE knowledge

## Mission Statement

We seek to create engineers who are grounded in the essentials of Electrical and Computer Engineering, are capable communicators, have an entrepreneurial spirit, are agile technologists, are effective in multi-disciplinary settings, and understand contemporary issues in the context of engineering. This balance provides the optimum preparation for entry into productive professional careers and provides the foundation for advanced studies.

## B.S. in Electrical and Computer Engineering

**John L. Schmalzel, Advisor**

**Rowan Hall**

**856-256-5330**

**[schmalzel@rowan.edu](mailto:schmalzel@rowan.edu)**

## Program Requirements

I. General Education	42 s.h.
<i>Communications</i>	3-4 s.h.
1501.111 College Composition I	
College Composition II and Public Speaking have been approved for inclusion in the Sophomore Engineering Clinics (I & II).	

<i>Science and Mathematics</i>		8 s.h.
1701.130	Calculus I	
1906.105	Adv. College Chemistry I	
<i>History, Humanities and Languages</i>		6 s.h.
	Approved HHL Course	
	Approved HHL Course	
<i>Social and Behavioral Sciences</i>		6 s.h.
	Intro to Microeconomics	
	Approved SBS Course	
<i>Artistic and Creative Experience</i>		3 s.h.
	Approved ACE Course	
<i>Non- Program Courses</i>		12 s.h.
1701.131	Calculus II	
1902.200	Physics I	
1902.203	Physics II	
0704.103	Computer Science and Programming	
<b>II. Major Requirements</b>		<b>86 s.h.</b>
1701.235	Math for Engineering Analysis I (4 s.h.)	
1701.236	Math for Engineering Analysis II (4 s.h.)	
0901.101	Freshman Engineering Clinics I (2 s.h.)	
0901.102	Freshman Engineering Clinics II (2 s.h.)	
0901.201	Sophomore Engineering Clinics I (4 s.h.)	
0901.202	Sophomore Engineering Clinics II (4 s.h.)	
0901.301	Junior Engineering Clinics I (2 s.h.)	
0901.302	Junior Engineering Clinics II (2 s.h.)	
0901.401	Senior Engineering Clinics I (2 s.h.)	
0901.402	Senior Engineering Clinics II (2 s.h.)	
0704.103	Computer Science and Programming	
0901.271	Statics (2 s.h.)	
0909.201	Network I	
0909.202	Network II	
0901.291	Dynamics (2 s.h.)	
0909.241	Digital I	
0909.242	Digital II	
0909.311	Electronics I	
0909.301	Engineering Electromagnetics I	
0909.302	Engineering Electromagnetics II	
0909.351	Digital Signal Processing	
0909.321	Systems and Control Communications	
0909.331	Electrical Communications	
0909.312	Electronics II: VLSI Design	
0704.225	Data Structures for Engineers	

- 0909.443 Computer Architecture I  
0909.444 Computer Architecture II  
Seminar: Engineering Frontiers  
Clinic Consultant

*One of the following courses:*

- Software Engineering  
Operating Systems  
Programming Languages  
Technology Focus Electives (2)  
Approved Electives (2)

#### **IV. Total Credits in Program**

**128 s.h.**

## **Mechanical Engineering**

**John C. Chen, Chair**  
**Rowan Hall**  
**856-256-5340**  
**chen@rowan.edu**

## **Mechanical Engineering**

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.

### **Program Goals**

1. Create well-rounded engineers who possess theoretical and practical skills, and understand the significance of 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 thinking with an understanding of entrepreneurship.
4. Develop science, mathematics, analytical, computational, and experimental skills and apply them to 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 the flexibility to adapt to changing technology and an understanding of the need for continuous improvement and lifelong learning.

### **Mission Statement**

We seek to create effective engineers who are well prepared for the next phase of their career, whether that be in industry or government, in graduate engineering studies, or in other advanced studies.

## B.S. in Mechanical Engineering

**John C. Chen, Advisor**  
**Rowan Hall**  
**856-256-5340**  
**chen@rowan.edu**

### Program Requirements

I. General Education	42-43 s.h.
<i>Communications</i>	3-4 s.h.
1501.111 College Composition I (College Composition II and Public Speaking are integrated into Sophomore Engineering Clinic I and II, respectively)	
<i>Science and Mathematics</i>	20 s.h.
1701.130 Calculus I 1906.105 Adv. College Chemistry I	
<i>History, Humanities and Languages</i>	6 s.h.
Approved HHL Course Approved HHL Course	
<i>Social and Behavioral Sciences</i>	6 s.h.
Intro to Microeconomics Approved SBS Course	
<i>Artistic and Creative Experience</i>	3 s.h.
Approved ACE Course	
<i>Non-Program Courses</i>	16 s.h.
1701.131 Calculus II (4 s.h.) 1902.200 Physics I (4 s.h.) 1902.201 Physics II (4 s.h.) 0704.103 Computer Science and Programming (4 s.h.)	
II. Major Requirements	86 s.h.
0704.103 Computer Science and Programming 1701.235 Math for Engineering Analysis I (4 s.h.) 1701.236 Math for Engineering Analysis II (4 s.h.) 0901.101 Freshman Engineering Clinics I (2 s.h.) 0901.102 Freshman Engineering Clinics II (2 s.h.) 0901.201 Sophomore Engineering Clinics I (4 s.h.) 0901.202 Sophomore Engineering Clinics II (4 s.h.) 0901.301 Junior Engineering Clinics I (2 s.h.) 0901.302 Junior Engineering Clinics II (2 s.h.) 0901.401 Senior Engineering Clinics I (2 s.h.) 0901.402 Senior Engineering Clinics II (2 s.h.) 0901.271 Statics (2 s.h.) 0901.272 Solid Mechanics (2 s.h.)	

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- 0901.281 Material Science (2 s.h.)  
0901.282 Manufacturing Processes (2 s.h.)  
0901.291 Dynamics (2 s.h.)  
0910.201 Vibrations (2 s.h.)  
0910.311 Engineering Thermodynamics I (2 s.h.)  
0910.312 Engineering Thermodynamics II (2 s.h.)  
0910.241 Machine Design (2 s.h.)  
0910.341 Mechanical Design and Synthesis (4 s.h.)  
0909.201 Networks I (2 s.h.)  
0910.342 Quality and Reliability in Design and Manufacturing (3 s.h.)  
0901.341 Fluid Mechanics I (2 s.h.)  
0910.313 Fluid Mechanics II (2 s.h.)  
0910.343 Mechanical Systems Dynamics and Control (3 s.h.)  
0906.311 Transfer Processes I - Heat (2 s.h.)  
0909.311 Electronics I (2 s.h.)  
0910.403 Emerging Topics in Mechanical Engineering (2 s.h.)  
Approved Science/Math Elective (3 s.h.)  
Technical Elective (3 s.h.)  
Approved Major Electives (12 s.h.)  
- Two electives from energy systems and two from mechanical systems.

**IV. Total Credits in Program**

**128 s.h.**

# COLLEGE OF FINE AND PERFORMING ARTS

**Donald L. Gephardt, Dean**  
**Wilson Hall**  
**856-256-4552**  
**gephardt@rowan.edu**

## History

The School of Fine and Performing Arts at Rowan University was founded in 1971. Additionally, Wilson Hall was completed at this time, built to house a music program of first rank. Upon Rowan's emergence as a University in 1997, the School became the College of Fine and Performing Arts. The College consists of an Art, Music and Theatre/Dance departments, it offers baccalaureate and graduate programs in the four arts disciplines and the Maynard Ferguson Institute of Jazz Studies. Forty-one full-time faculty engage with 540 major students to form a first-rate creative Arts Learning Community at Rowan. The College also presents over 250 arts experiences and events for the benefit of both the university community and the surrounding region. The College is dedicated to the fostering of artistic and creative endeavor in the Arts. Specifically, it provides professional training in the arts for majors and arts curricula and aesthetic experiences for all students that enhance the educational programs at the University.

## Mission

The College of Fine and Performing Arts fosters a dynamic intellectual and creative environment that produces transcendent experiences of discovery and expression. The College nurtures authentic learning communities through rigorous degree programs that educate artists of the future and provide classroom and applied arts experiences for non-majors and enriching programs for the public.

## Accreditations

National specialized arts accreditation has been bestowed on the art, music, and theatre programs of the University. National Association of Schools of Art & Design for the BA and BFA in Studio Art; the National Association of Schools of Music for the BA, BM, MA in Music Education, and MM; and the National Association of Schools of Theatre for the BA, MA in Theatre.

## Programs Offered

In the professional area, the College offers rigorous degree programs that are 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, theatre productions and art exhibits, artistic expression becomes an integral part of the educational experience. In the Liberal Arts area, arts curricula are offered that provide extensive study of the fine and performing arts through Minor programs, Concentrations and, for Elementary Education Majors, Coordinate Majors. 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.

## **Additional Information**

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 arts faculty at Rowan consist 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**

Major programs consist of a Bachelor of Arts in Art, Music and Theatre Arts (with specializations in Theatre or Child Drama); a Bachelor of Fine Arts in Studio Art and a Bachelor of Music.

Minor programs are available in Art, Dance, Music and Theatre.

## **Dual Majors in Teaching**

Art, Music and Theatre 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.

## **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 in each degree program outline of courses within each department. In addition to the General Education Core Requirements a BA degree requires 60 credits and a Professional degree requires 45 credits.

## **Departments**

The College consists of the departments of Art, Music and Theatre/Dance.

## **Support Services**

Company-In-Residence Contact with professionals in the field is very important to any arts educational program. At Rowan, the following professional arts company is in residence year round: Atlantic Brass Band

## **Art**

**Skeffington N. Thomas, Chair**  
**Westby Arts Center**  
**856-256-4010**  
**thomass@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. After passing the Studio Core and completion of three additional studio courses, an application to the BFA program may be initiated if desired.

### **Admission Requirements**

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. 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.

## Bachelor of Fine Arts in Studio Art (BFA)

**David E. Vaccaro, Advisor**

**Westby Arts Center**

**856-256-4520**

**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 Ceramics, Glass, Graphic Design, Illustration, Jewelry/Metraly, Photography, Printmaking, Sculpture, Drawing and Painting.

## Bachelor of Fine Arts in Studio Art (BFA)

### I. General Education

**42 s.h.**

#### *Communications*

*9 s.h.*

- 1501.111 College Composition I
- 1501.112 College Composition II
- 1506.202 Public Speaking

#### *Science and Mathematics*

*7 s.h.*

#### *Social and Behavioral Sciences*

*6 s.h.*

#### *History, Humanities and Languages*

*6 s.h.*

Aesthetics option

#### *Artistic and Creative Experience*

*6 s.h.*

#### *Non-Program Courses*

*8 s.h.*

### II. Major Requirements

**78 s.h.**

#### *A. Foundation Core*

*19.5 s.h.*

- 1002.100 Representational Drawing
- 1002.110 Figure Drawing
- 1002.200 Expressive Drawing
- 1002.105 Color & Design - 2D
- 1002.207 Color & Design - 3D
- 1009.308 Color Theory
- 1009.101 Digital Media & Techniques
- 1002.222 Studio Core Portfolio Review

#### *B. Studio Choices*

*33 s.h.*

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

Studios include Ceramics, Computer Art, Drawing, Graphic Design, Illustration, Jewelry/Metraly, Photography, Printmaking, and Sculpture.

- 1009.390 Work in Progress Review 0 s.h.
- 1009.490 Senior Thesis/Exhibition 0 s.h.

<i>C. Art Studio Electives</i>		13.5 s.h.
<i>D. Art History</i>		12 s.h.
1003.103	Art History Survey I	
1003.104	Art History Survey II	
1003.205	Art History Survey III	
	Art History/Theory Choice	
<b>Program Total</b>		<b>120 s.h.</b>

**Bachelor of Arts in Art (BA)**

**David E. Vaccaro, Advisor**  
**Westby Arts Center**  
**856-256-4520**  
**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.

**Concentration: Art Education.****B.A. in Art**

<b>I. General Education Requirements</b>	<b>54 s.h.</b>
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<i>Communications</i>	9 s.h.
1501.111	College Composition I
1501.112	College Composition II
1506.202	Public Speaking

<i>Science and Mathematics</i>	7 s.h.
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<i>Social and Behavioral Sciences</i>	6 s.h.
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<i>History, Humanities and Language</i>	12 s.h.
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- Aesthetics or Philosophy option
- Foreign language suggested

<i>Artistic and Creative Experience</i>	6 s.h.
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<i>Non-Program Courses</i>	14 s.h.
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<b>II. Major Requirements</b>	<b>39 s.h.</b>
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<i>A. Foundation Core</i>	19.5 s.h.
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- 1002.100   Representational Drawing
- 1002.110   Figure Drawing
- 1002.200   Expressive Drawing
- 1002.105   Color and Design-2D
- 1002.207   Color and Design-3D
- 1009.308   Color Theory
- 1009.101   Digital Media & Techniques
- 1002.222   Studio Core Portfolio Review

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<i>Art History</i>		<i>9 s.h.</i>
1003.103	Art History Survey I	
1003.104	Art History Survey II	
1003.205	Art History Survey III	
<i>B. Studio Choices</i>		<i>10.5 s.h.</i>
Select studios in consultation with advisor.		
<i>C. Senior Show or Project (1009.401)</i>		<i>0 s.h.</i>
<b>III. Free Electives</b>		<b>27 s.h.</b>
<b>Program Total</b>		<b>120 s.h.</b>

### **B.A. in Art / B.A. in Education with Endorsement to teach Art K -12**

**Jane E. Graziano, Coordinator**

**Westby Arts Center**

**856-256-4520**

**graziano@rowan.edu**

**Kaye Leissner Passmore, Advisor**

**Westby Arts Center**

**856-256-4520**

**passmore@rowan.edu**

### **B.A. in Art/B.A. in Education—K-12 Subject Matter Endorsement**

This unique program offers students an opportunity to satisfy degree requirements for a BA in Art and a BA in Education with New Jersey State Art Teacher Endorsement for grades K-12. With artistic studies in art history and studio, the program combines the broad perspectives of a liberal arts education with a focus on educational theories and methodologies. The purpose of the program is to provide future teachers with a strong foundation in educational theory and practice for teaching art in the public schools. Equal emphasis is placed on acquiring artistic knowledge and techniques through a variety of lecture and studio experiences. Students enrolled in this dual major program are expected to integrate the roles of artist and educator and may choose to apply for the Bachelor of Fine Arts degree program during the end of sophomore year for more in-depth studio opportunities.

Information about this program can be obtained from the Art Department (856) 256-4520 and the Department of Secondary Education (856) 256-3867. For Post-Baccalaureate endorsement in the teaching of art K-12, obtain information from The Graduate School (856) 256-4050.

<b>General Education Requirements</b>	<b>58 s.h.</b>
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<i>Communications</i>	<i>9 s.h.</i>
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1501.111 College Composition I

1501.112 College Composition II

1506.202 Public Speaking

<i>Science and Mathematics</i>	<i>7 s.h.</i>
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Math Elective

Lab Science

<i>Social and Behavioral Sciences</i>	<i>6 s.h.</i>
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2009.209 Child Development

2009.210 Adolescent Development

<i>History, Humanities and Language</i>	<i>9 s.h.</i>
Broad-based Literature	
Aesthetics or Philosophy option	
Foreign language suggested	
<i>Artistic and Creative Experience</i>	<i>6 s.h.</i>
Music/Dance/Theatre	
Music/Dance/Theatre	
<i>Non-Program Courses</i>	<i>23 s.h.</i>
0821.230     Characteristics of Knowledge Acquisition	
0808.130     Human Exceptionality	
0821.150     History of American Education	
0830.120     Literacies in Today's World	
1009.200     Theory & Analysis of Art Education	
Elective	
Elective	
Elective	

<b>Education Requirements</b>	<b>32 credits</b>
0801.104     Teaching: An Introduction to the Profession	
0801.270     Teaching in the Learning Community I	
0801.282     Teaching in the Learning Community II-Art	
0803.350     Teaching Students Cult. & Ling. Diversity	
0830.280     Teaching Literacy	
0831.350     Elementary Methods: Teaching & Learning Art (content) A	
0803.330     Practicum A	
0831.360     Secondary Methods: Teaching & Learning Art (content) B	
0803.332     Practicum B	
0831.450     Clinical Practice in Art Education	
0831.451     Clinical Seminar in Art Education	
0833.420     Integrating Ed. Technology into Teaching	

## II. Academic Major

<b>Art Requirements</b>	<b>39 credits</b>
<i>A. Foundation Core</i>	<i>19.5 s.h.</i>
1002.100     Drawing I (Representational)	
1002.110     Drawing II (Figure)	
1002.200     Drawing III (Expressive)	
1002.105     Color & Design I	
1002.207     Color & Design II	
1009.101     Digital Media & Techniques	
1009.308     Color Theory	
1002.222     Studio Core Portfolio Review	

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<i>B. Art History</i>		<i>9 s.h.</i>
1003.103	Art History Survey I	
1003.104	Art History Survey II	
1003.105	Art History Survey III	
<i>C. Studio</i>		<i>12 s.h.</i>
Studio		
<i>D. Senior Project Art (1009.401)</i>		<i>0 s.h.</i>
<b>Program Total</b>		<b>129 s.h.</b>

## **Minor in Art**

**David E. Vaccaro, Advisor**

**Westby Arts Center**

**856-256-4520**

**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: five core courses and three studio electives, as follows:

### **Foundation Core:**

- 1002.100      Representational Drawing
- 1002.105      Color and Design-2D
- 1002.200      Expressive Drawing
- 1002.207      Color and Design-3D
- 1003.130      Art Appreciation

### **Studio Electives:**

(Choose three) Note: If intermediate courses are selected, prerequisites listed in the catalog descriptions of these courses must be met.

- 1011.250      Photography I
- 1011.275      Photography II
- 1002.220      Painting I
- 1002.240      Sculpture I
- 1002.260      Printmaking I
- 1009.210      Jewelry and Metalry I
- 1009.225      Puppetry I
- 1009.240      Ceramics I
- 1009.228      Illustration I
- 1009.343      Graphic Design I
- 1009.351      Computer Art I
- 1002.110      Figure Drawing

1002.225	Painting II
1002.251	Sculpture II
1002.261	Printmaking II
1009.226	Puppetry II
1009.211	Jewelry and Metalry II
1009.344	Graphic Design II
1009.241	Ceramics II
1009.229	Illustration II
1009.452	Computer Art II
0839.347	Advanced Photography

## Music

**Robert Rawlins, Chair**

**Wilson Hall**

**856-256-4555**

**rawlinsr@rowan.edu**

The Department of Music develops the total artist through a series of studies and experiences designed to inspire the creative process. The non-verbal language of music enhances communication through perception, interpretation, expression and evaluation and teaches the self-discipline, problem-solving and creativity that are necessary for success in work and life.

Based on this philosophy, a program of study for the music major can lead to:

a performing career in the arts

a teaching career in the arts

graduate study in the arts

a broader cultural knowledge appropriate for many career options.

For music majors, Baccalaureate degrees are offered with the following program options: Bachelor of Music in (a) Performance (b) Music Education (c) Jazz Studies (d) Music Education - Jazz (e) Composition. The Master of Arts in Music Education degree provides advanced study for the music specialist, and the Master of Music degree in Music Performance is offered for advanced study. (Please see the Graduate Catalog.)

Options in Applied Performance, Jazz Studies or Composition combine in-depth study of music with required courses in general education to provide the initial preparation for careers as performers, composers, scholars and college teachers. These three curricula provide instruction in all orchestral instruments, saxophone, voice, piano, organ, classical guitar, accordion, composition, and jazz studies.

Options in Jazz Studies: Music Education specialization and in Music Education curriculum combine broad study in music with required courses in general and professional education to qualify graduates for a career in public school teaching with K-12 teacher certification.

The Bachelor of Arts in Music curriculum, a liberal arts program with a major in music, is 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.

For admission to the music major program, one 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 B.A. Music curriculum, present a senior recital. Requirements for the Bachelor of Music in Applied

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Performance and Jazz Studies include a junior recital as well. Students required to take Music Fundamentals and/or Sight Singing/Ear Training will automatically be tracked into the BA program until Music Fundamentals coursework has been successfully completed.

Non-majors can find artistically fulfilling experiences as (1) music minors by combining a flexible sequence of music course with a separate major outside music, as (2) elementary education majors with a coordinate major in music, or (3) as students in other disciplines who participate in music for academic credit and/or aesthetic pleasure. Non-majors are invited to take part in ensembles and other activities of the Department of Music.

The Department of Music is a fully accredited member of the National Association of Schools of Music and sponsors a chapter of Phi Mu Alpha Sinfonia and Sigma Alpha Iota.

### **Bachelor of Arts in Music**

**Thomas Wade, Advisor**

**Wilson Hall**

**856-256-4500 ext 3714**

**wade@rowan.edu**

<b>Curriculum (liberal arts)</b>	<b>120 s.h.</b>
<i>A. General Education</i>	<i>60 s.h.</i>
(See p. 48 for all-university requirements)	
<i>1. Communication</i>	<i>9 s.h.</i>
1501.111      College Composition I	
1501.112      College Composition II	
1506.202      Public Speaking	
<i>2. Mathematics and Science</i>	<i>7 s.h.</i>
<i>3. Behavioral and Social Sciences</i>	<i>6 s.h.</i>
<i>4. History, Humanities and Language</i>	<i>9 s.h.</i>
<i>5. Artistic and Creative Experience</i>	<i>6 s.h.</i>
<i>6. Non Program Electives</i>	<i>16 s.h.</i>
<i>B. Free Electives</i>	<i>28 s.h.</i>
<i>C. Major Requirements</i>	<i>39 s.h.</i>
Major Applied Instrument/Voice I-VI 1097.105 1097.106 1097.107 1097.108 1097.205 1097.206 1097.207 1097.208 1097.225 1097.305 1097.306 1097.307 1097.308	
Piano Class I-II 1097.100 1097.101	
Music Theory I-II 1004.130 1004.132 1004.131 1004.133	
General Music History 1006.102	
Music in World Cultures 1006.447 OR	
Growth and Development of Jazz 1006.115	
Student Recitals	
Ensemble Choices	
Choose two from Musical Styles I-III	
Choose five credits from: Music Fundamentals, Sight Singing/Ear Training/Music Theory	
<b>III-IV, Piano Class III-IV; Computer Technology and Music I-II</b>	

**Bachelor of Music - Music Education**

**Lawrence DePasquale, Advisor**  
**Wilson Hall**  
**856-256-4896**  
**depasquale@rowan.edu**

**I. Music Education and B.M. in Jazz Studies with Music Education option. (Teacher Certification K-12 with specializations: Guitar, Instrumental, Keyboard, and Vocal)** **136-141 s.h.**

<i>A. General Education</i>	42-43 s.h.
1. <i>Communications</i>	9 s.h.
College Composition I 1501.111	
College Composition II 1501.112	
Public Speaking 1506.202	
2. <i>Science and Mathematics</i>	7 s.h.
Biological or Physical Lab Choice	
Math Choice	
3. <i>Social and Behavioral Sciences</i>	6 s.h.
Intro to Sociology 2208.120	
Child Development 2009.209	
4. <i>History, Humanities and Language</i>	6 s.h.
History of American Education 0821.150	
Literature Choice	
5. <i>Artistic and Creative Experience</i>	3 s.h.
6. <i>Non-Program Electives</i>	12 s.h.
0835.103 Health and Wellness	
1006.102 General Music History	
Technology course Choice	
Social/Behavioral Science Choice	
Ensembles	
<i>B. Professional Education</i>	30 s.h.
<i>C. Major Requirements</i>	64-69 s.h.
Development of Musical Styles I, II, III 1006.214, 1006.215, 1006.335	
Music Theory I-IV, Written and Aural 1004.130, 1004.132, 1004.131, 1004.133, 1004.240, 1004.242, 1004.241, 1004.243	
Major Applied Instrument or Voice I-VIII 1097.105, 1097.106, 1097.107, 1097.108, 1097.205, 1097.206, 1097.207, 1097.208, 1097.225, 1097.305, 1097.306, 1097.307, 1097.308, 1097.405, 1097.406, 1097.407, 1097.408	
Piano Class I-IV (except keyboard spec.) 1097.100, 1097.101, 1097.200, 1097.201	
Voice Class (except vocal spec.) 1097.405	
Instrumental or Choral Conducting I, II 1097.212, 1097.312, 1097.213, 1097.313	
Orchestration or Vocal Arranging 1004.404, 1004.403	
Ensemble I-VII 1004.127, 1004.128, 1004.227, 1004.228, 1004.327, 1004.328, 1004.427	
Student Recitals I-VII 1004.050	

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Music Fundamentals 1004.118  
Choral Literature (except instrumental) 1006.303  
Language/VR (except instrumental and keyboard)  
Instrument Classes (check with advisor)  
Keyboard Specialization Only  
Piano Pedagogy  
Keyboard Literature  
Vocal Specialization Only  
Vocal Literature or Ensemble VII-VIII

*D. Music Fundamentals, Ensemble III-VII, Music in World Cultures, and Development of Styles I-III are counted as 20 s.h. of General Education beyond the 42 s.h. required in the B.M. for the purpose of complying with state certification regulations.*

## **Bachelor of Music - Performance**

**Thomas Wade, Advisor  
Wilson Hall  
856-256-4500 ext 3714  
[wade@rowan.edu](mailto:wade@rowan.edu)**

## **II. Applied Performance: Keyboard, or Instrumental or Vocal**

120 or 121 s.h.

A General Education

42-43 s.h.

*(Same as Music Education except no required courses in Social & Behavioral Sciences Bank, and only required Gen Ed electives are 1006.102, General Music History and 1006.447 and 1006.448, Music in World Cultures or 1006.115, Growth and Development of Jazz.)*

### *B. Major Requirements*

77-79 s.h.

Development of Musical Styles I. II. III 1006.214 1006.215 1006.335

Music Theory I-IV, Written and Aural 1004.130 1004.131 1004.132 1004.133 1004.240 1004.241

1004.242 1004.243 Professional Appl. Instrument/Voice I-VIII 1004.121 1004.122 1004.221 1004.222  
1004.321 1004.322 1004.421 1004.422 1004.123 1004.124 1004.223 1004.224 1004.323 1004.324  
1004.423 1004.424

Piano Class I-IV (except keyboard majors) 1097.100 1097.101 1097.200 1097.201

Instrumental or Choral Conducting I-II 1097 212 1097 312 1097 213 1097 313

Chamber Music I II 1004 309 1004 310

Music in World Cultures 1006 447 1006 448

Form/Score Analysis (except vocal majors) 1004 450

Term, Score Analysis (except vocal majors), 1004.1-1004.5  
Student Recitals I-VIII 1004.505

## Ensembles

## **Electives**

## Lectives Voice Spec.

## Voice Specialization Only

Secondary Applied Instrument I&II (piano) 1097.114 1097.115  
Language Through Vocal Repertory 1094.203 1094.203 1094.203

Language Through Vocal Repertoire 1004.202 1004.203 1004.204  
Vocal Production: Acoustic Literacy 2022-2312

## Vocal Pedagogy, Arranging, Literature 0832.218 Kathleen S. Johnson, S.J.

## Keyboard Specialization Only

## Keyboard Literature 1006.120

Piano Pedagogy and Accompanying 0832.219

**Bachelor of Music - Jazz Studies**

**Denis DiBlasio, Advisor**  
**Wilson Hall**  
**856-256-4500 ext 3528**  
**diblasio@rowan.edu**

**II. Jazz Studies Curriculum 122 s.h.**

A. General Education 42 s.h.

(see note under II. Applied Performance)

B. Major Requirements 85 s.h.

Major Applied Instrument I-VIII 1097.105, 1097.106, 1097.205, 1097.206, 1097.305, 1097.306, 1097.405, 1097.406

Improvisation I-VIII Applied 1004.105, 1004.106, 1004.207, 1004.208, 1004.305, 1004.306, 1004.407, 1004.408

Music Theory I-IV, Written and Aural 1004.130, 1004.132, 1004.131, 1004.133, 1004.240, 1004.242, 1004.241, 1004.243

Piano Class I-II 1097.100, 1097.101

Secondary Applied Piano I and II (Jazz) 1004.229, 1004.230

Ensembles

Student Recitals (8 semesters)

Computer Technology and Music I 1004.350

Audio Recording 1004.344

Project Audio Recording 1004.411

The Business of Music 1097.335

Stage Band Rehearsal Techniques 1004.333

Development of Musical Styles II-III 1006.214, 1006.215, 1006.335

Composing in Traditional and Contemporary Styles 1004.363

Arranging 1004.361

**Bachelor of Music - Composition**

**Thomas Wade, Advisor**  
**Wilson Hall**  
**856-256-4500 ext 3714**  
**wade@rowan.edu**

**IV. Composition**

**126 s.h.**

A. *General Education*

*42 s.h.*

(see note under II. Applied Performance.)

B. *Major Requirements*

*79 s.h.*

Development of Musical Styles I, II, III 1006.214 1006.215 1006.335

Composition I-VIII 1004.125 1004.225 1004.226 1004.325 1004.326 1004.425 1004.426

Music Theory I-IV, Written and Aural 1004.130 1004.131 1004.132 1004.133 1004.240 1004.242  
1004.241 1004.243

Contemporary Music Ensembles I-VIII 1004.128

Piano Class I-IV (except piano secondary) 1097.100 1097.101 1097.200 1097.201

Secondary Applied Instrument or Voice I-VIII 1097.114 1097.115 1097.124 1097.125 1097.214

## COLLEGE OF FINE AND PERFORMING ARTS

1097.215 1097.224 1097.225 1097.314 1097.315 1097.324 1097.325 1097.414 1097.415 1097.424  
1097.425  
Choral and Instrumental Conducting I 1097.212 1097.213  
Form/Score Analysis 1004.450  
Orchestration 1004.404  
Computer Technology and Music I 1004.350  
Counterpoint 1004.455  
Vocal Arranging 1004.403  
Student Recitals I-VIII 1004.050  
Ensemble I-VIII 1004.127 1004.128 1004.227 1004.327 1004.328 1004.427 1004.428  
Chamber Music I-II 1004.309 1004.310

### **Coordinate Major**

**Lili Levinowitz, Advisor**  
**Wilson Hall**  
**856-256-4500 ext 3716**  
**levinowitz@rowan.edu**

### **V. Coordinate Major in Music**

<i>(for Elementary Education Majors) Requirements</i>	<i>35 s.h. minimum</i>
<i>A. Major courses</i>	<i>24 s.h. minimum</i>
Music Theory I and II 1004.130 1004.132 1004.131 1004.133	
Student Recitals I-VI 1004.050	
General Music History 1006.102	
Major Applied Instrument or Voice I-VI 1097.105 1097.106 1097.107 1097.108 1097.205 1097.206	
1097.207 1097.208 1097.305 1097.306 1097.307 1097.308	
Music in World Cultures 1006.448 OR	
Growth and Development of Jazz 1006.115	
<i>B. Other Requirements</i>	<i>14 s.h. minimum</i>
A minimum of five hours chosen from:	
Computer Technology and Music I, II 1004.350 1004.351	
Music Fundamentals 1004.118	
Sight Singing and Ear Training 1004.110	
Music Theory III, IV 1004.240 1004.242 1004.241 1004.243	
Piano Class III, IV 1097.200 1097.201	

*Choose two:*

Development of Music Styles and Forms I, II or III 1006.214 1006.215 1006.335

### **Ensemble Requirement:**

All coordinate majors must register for at least six semesters of ensemble, concurrently satisfying the following requirements:

Vocal Track: at least four semesters of Chamber Choir, Choral Union or Concert Choir. Other eligible ensembles include Collegium Musicum, Contemporary Music Ensemble and Opera

## **Workshop.**

Instrumental Track: at least four semester of either Orchestra or Band. Other eligible ensembles include: Collegium Musicum, Contemporary Music Ensemble, and Lab Band.

Non-Keyboard majors are required to take Piano Class I and Piano class II.

Voice Major: For General Education language requirements, select two courses from French I, Italian I and German I

Guitar Major: For General Education language requirements, elect Spanish I and II.

## **Minor in Music**

**Thomas Wade, Advisor**

**Wilson Hall**

**856-256-4500 ext 3714**

**wade@rowan.edu**

### **VI. Music Minor**

*(for Non-Music Majors)*

25-29 s.h.

#### *A. Requirements*

16/17 s.h.

Secondary Applied Instrumental OR Vocal I- VI 1097.114 1097.115 1097.124 1097.125 1097.214  
1097.215 1097.224 1097.225 1097.314 1097.315 1097.324 1097.325

Music Fundamentals & Sight Singing 1004.118 1004.110 Music Theory I 1004.130 1004.132 OR  
Music Theory I and II 1004.131 1004.133

Piano Class I and II (except Piano SAI) 1097.102 1097.103

General Music History 1006.102

Ensemble I-VI 1004.127 1004.128 1004.227 1004.228 1004.327 1004.328

Student Recitals I-VI 1004.050

#### *B. Electives:*

Choose 9 s.h. from the following:

Ensemble Choice

Music Theory III, IV 1004.240 1004.242 1004.241 1004.243

Musical Styles I, II, III 1006.214 1006.215 1006.335

Form and Analysis 1004.450

Conducting I, II (Instrumental or Choral) 1097.212 1097.312 1097.213 1097.313

Orchestration 1004.404

Vocal Arranging 1004.403

Acoustics of Music

Music in World Cultures I, II 1006.447 1006.448

Computers and Music Technology I 1004.350

Selected Topics in Music

Growth and Development of Jazz 1006.115

Stage Band Rehearsal Techniques 1004.363

New Jazz Structures 1006.439

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.

# Theatre and Dance

**Melanie Stewart, Chair**  
**Bunce Hall**  
**856-256-4034**  
**stewartm@rowan.edu**

## Certification to Teach

Besides choosing theatre as a coordinate major within the elementary education program, theatre majors may opt for certification to teach in secondary schools. While the option usually includes a fifth year of undergraduate study, careful planning may shorten the time. The selection of courses for certification is made once the student elects the option (in the sophomore year or, for transfers, as soon as the student is accepted in the department).

## Advising

The programs in theatre and dance are structured and require consultation with an academic advisor prior to registering for courses each semester. Students who disregard the advising process endanger their academic progress.

## Facilities

The Theatre/Dance Department is housed in Bunce Hall, the first building constructed on campus. The mainstage theater and dance season is presented in Bunce Hall's historic 450 seat Tohill Theater. Student produced events are presented in the small Studio Theatre, also located in Bunce Hall. In addition, Bunce contains rehearsal space, a well-equipped costume and scene shop, prop and costume storage, a computer-equipped design studio, an acting studio and department offices. Two newly renovated dance studios are located in Memorial Hall.

Our programs offer a rigorous education in performance technique and literature that complements broad-based liberal arts study. A BA in Theatre can lead to a variety of career options in performance, teaching, design, and technical theatre as well as provide a solid foundation for further study in a variety of fields. Theatre study at Rowan emphasizes intellectual development, self-knowledge and discipline through a curriculum that stresses the full, engaged integration of the body, mind, and voice.

## Performance Activities

A full range of theater and dance production opportunities supplement coursework and helps students develop performance and production skills through the creation of live theatre. All students may participate in one or more of the department's performance groups: Campus Players, Dance Extensions, or Lab Theater. These groups all together produce approximately 10 events per year, ranging from full-scale mainstage shows to student directed and choreographed workshops. These performances provide students practical experience as performers, directors, designers and technicians and allow them to creatively apply the methods and skills learned in the classroom.

## Minor and Concentrations

The Theatre/Dance minors and concentrations available at Rowan give students majoring in other areas a structured program that enables them to participate in the arts of performance while increasing their knowledge and enhancing their skill level through rigorous classroom work. The Theatre minor often appeals to English, Music and Radio/Television/ Film students and the Dance minor to students from a wide range of studies.

The concentration in Dance is intended to hone the skills of the dancer as performer, and the concentration in Theatre Design provides a program for Art majors wishing to learn more about the technical and design aspect of theatre art.

## Academic Programs

A Bachelor of Art in Theatre consists of 52 credits of General Education courses, 34-39 in our major, and 21-29 credits of free electives. The free elective hours can be used to complete a minor in a related field.

The Department of Theatre and Dance offers two specializations within the major: Theatre and Child Drama. The Child Drama specialization is a coordinate major of elementary education and prepares students to become general classroom teachers at the elementary level.

The Theatre Specialization offers three tracks: Performance, Design/Tech, and Liberal Arts. The three tracks share a core of basic theatre arts courses but allow students extended study in their specific field of interest. The liberal arts track appeals to students wishing to pursue careers as high school drama teachers or those interested in a broad-based theatre education. Elementary and secondary school teaching certification is available but may require at least one additional semester of study and careful academic advisement.

Our Master of Arts in Theatre offers continuing graduate level education for those wishing to strengthen their knowledge of theatrical theory and practice. It also serves as a foundation for theater scholars interested in pursuing a Ph.D. in theatre study.

## Auditions and Interviews

Admission to the department requires an on-campus interview and, in many cases, a 4 minute audition consisting of two contrasting monologues. Students seeking admission to the design/tech track and the child drama specialization are not required to audition but must be interviewed and present a portfolio or folder demonstrating their experience and ability. For specific information on interview or audition requirements, call or write the department chairperson.

## B.A. in Theatre

**Melanie Stewart, Advisor**  
**Bunce Hall**  
**856-256-4034**  
**stewartm@rowan.edu**

The Rowan Bachelor of Arts in Theatre contains two specializations: Theatre and Child Drama. Either specialization leads the student to the bachelor's degree, but each has a different emphasis and curriculum. The Child Drama specialization focuses on skill associated with the creation of theatre for young audiences and the use of theatrical and puppetry tools in the elementary classroom. The Theatre specialization prepares the student for work in the professional world and is divided into three areas that reflect differing career focuses: performance, design/tech and liberal arts. The performance track appeals to those wishing to become actors, the design/tech track appeals to backstage artists and the liberal arts track to young directors and prospective teachers.

### I. General Education

<i>A. BA in Theatre Arts</i>	<i>52 s.h.</i>
<i>1. Communications Bank</i>	<i>9 s.h.</i>
1501.111   College Composition I (Writing)	
1501.112   College Composition II	
1506.202   Public Speaking	
<i>2. Science and Mathematics Bank</i>	<i>7 s.h.</i>
0410.210   Human Anatomy and Physiology or choice	
Math Choice	

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<i>3. Social and Behavioral Sciences Bank</i>	<i>6 s.h.</i>
2001.100 Intro to Psychology: Personal, Emotional & Social	
0601.203 Mass Media & Influence	
<i>4. History, Humanities, and Language Bank</i>	<i>6 s.h.</i>
2205.120 World History since 1500 (M/G)	
1502.113 Readings in U.S. Lit OR	
1502.110 Readings in British Lit OR	
1502.116 Readings in World Lit (M/G)	
<i>5. Artistic and Creative Experience Bank</i>	<i>9 s.h.</i>
Music Choice	
Art Choice	
Arts History Course (select from the following)	
1003.131 History of American Art	
1003.220 Modern Art	
1006.102 General Music History	
1006.115 Growth and Development of Jazz	
1008.436 Dance History	
<i>6. Non-Program Courses (Suggested)</i>	<i>15 s.h.</i>
(Child Drama 19 s.h.)	
1509.311 Aesthetics	
1502.250 Shakespeare I	
OR	
1502.350 Shakespeare II	
OR	
Readings in Shakespeare	
0701.200 Computing Environments	
Modern American Dramatists	
OR	
1010.270 Film History I	
OR	
1010.271 Film History II	
Choice	

**II. Specializations:**

<i>A. Theatre Specialization</i>	<i>39 s.h.</i>
<i>CORE</i>	<i>23 s.h.</i>
1007.111 Colloquium I	
1007.112 Colloquium II	
1007.113 Colloquium III	
1007.114 Colloquium IV	
1007.201 Introduction to the Theatre	
1007.230 Stagecraft I	
1007.231 Stagecraft II	
1007.203 Costuming I	

- 1007.205 Costuming II
- 1007.105 Introduction to Acting
- 1007.339 History of the Theatre to 1700
- 1007.340 History of the Theatre from 1700 to 1956
- 1007.440 Contemporary World Theatre (WI) (Lit)

**Theatre Tracks**

16 s.h.

**Performance Track**

- 1008.135 Elements of Dance
- 1007.103 Speech for the Stage
- 1007.235 Acting I
- 1007.236 Acting II
- 1007.345 Rehearsal and Performance I
- 1007.345 Rehearsal and Performance II
- 1007.430 Directing I
- 1007.460 Senior Project in Theatre

**Design/Tech Track**

- 1007.300 Drawing and Rendering for the Theatre
- 1007.232 Stagecraft III
- 1007.233 Stagecraft IV
- 1007.310 Foundations of Theatrical Design
- 1007.390 Technical Supervision I
- 1007.391 Technical Supervision II
- 1007.460 Senior Project in Theatre

*Select two of the following:*

- 1007.350 Scenic Design
- 1007.353 Lighting Design
- 1007.356 Costume Design

**Liberal Arts Track**

- 1007.103 Speech for the Stage
- 1007.235 Acting I
- 1007.236 Acting II
- 1007.390 Technical Supervision I
- 1007.391 Technical Supervision II
- 1007.430 Directing I
- 1007.250 Children's Theatre
- 1007.460 Senior Project in Theatre

**III. Free Electives**

29 s.h.

**IV. Total Credits in Theatre Specialization**

120 s.h.

## COLLEGE OF FINE AND PERFORMING ARTS

<i>B. (Non-Program Courses for Child Drama</i>	<i>19 s.h.</i>
<i>Child Drama Specialization</i>	<i>34 s.h.</i>
1007.111 Colloquium I	
1007.112 Colloquium II	
1007.201 Intro to Theatre	
1007.105 Intro to Acting	
1007.230 Stagecraft I	
1007.231 Stagecraft II	
Theatre History-one course from:	
1007.339 History of the Theatre to 1700	
<i>OR</i>	
1007.340 History of the Theatre from 1700 to 1956	
<i>OR</i>	
1007.440 Contemporary World Theatre	
1007.105 Voice and Articulation	
<i>OR</i>	
1007.103 Speech for the Stage	
1007.135 Oral Interpretation of Literature	
1009.225 Puppetry I	
1009.226 Puppetry II	
1007.250 Children's Theatre	
1007.435 Creative Dramatics	
1008.315 Creative Dance for Children	
<i>OR</i>	
1008.135 Elements of Dance	

**V. Free Electives** **30 s.h.**

**VI. Total Credits in Child Drama Specialization** **120 s.h.**

### **Minor in Theatre**

**Bartholomew Healy, Advisor**

**Bunce Hall**

**856-256-4232**

**healy@rowan.edu**

The minor in theatre provides an overview of plays, performance and production studies that involve students in both the practical and scholarly aspects of Theatrical Art. Students in any program are eligible for the 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, 9 hours of electives.

### **Required Courses**

*10 semester hours*

1007.111	Colloquium I
1007.112	Colloquium II
1007.130	Living Theatre

- 1007.105 Introduction to Acting  
1007.230 Stage Craft I  
1007.231 Stage Craft II  
*OR*  
1007.203 Costuming I  
1007.205 Costuming II

### **Electives**

*6 semester hours from the following:*

- 1007.250 Childrens Theatre  
1007.360 Musical Theatre  
1007.350 Scene Design Studio  
1007.353 Stage Lighting  
1007.103 Speech for the Stage  
1007.235 Acting I  
1007.236 Acting II  
1007.430 Directing I  
1007.431 Directing II  
1007.365 Theatre Management  
1008.126 Movement for the Actor  
1007.356 Costume Design  
1007.310 Foundations of Design  
1007.230 Stagecraft I  
1007.231 Stagecraft II  
1007.203 Costuming I  
1007.205 Costuming II  
1007.435 Creative Dramatics  
1008.135 Elements of Dance  
1007.215 Experiencing Acting

### **History/Literature Elective**

*3 semester hours; one course selected from the following:*

- 1007.339 History of the Theatre to 1700  
1007.340 History of the Theatre 1700 to 1956  
1007.440 Contemporary World Theatre (WI)

### **Minor in Dance**

**Paule Lawrence Turner, Advisor**  
**Memorial Hall**  
**856-256-4055**  
**[turnerp@rowan.edu](mailto:turnerp@rowan.edu)**

The Minor in Dance provides a flexible program of study that combines technique with theory. Students take courses in dance education, dance history or movement for the actor.

## Courses

The minor in dance 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.

### Required

**3 s.h.**

1008.135 Elements of Dance

*6-12 s.h.*

### *Electives - Technique*

1008.236 Modern Dance I

1008.237 Modern Dance II

1008.377 Modern Dance III

1008.246 Ballet I

1008.247 Ballet II

1008.346 Ballet III

1008.256 Jazz Dance I

1008.257 Jazz Dance II

1008.360 Jazz Dance III

1008.151 Ethnic and Character Dance

1008.222 Dance for the Musical Stage

*6-12 s.h.*

### *Electives - Theory*

1007.338 Touring the Theatre Production

1008.270 Lecture/Dem. Production

1008.326 Dance Composition I

1008.336 Choreography

1008.436 Dance History

1008.315 Creative Dance for Children

1008.465 Dynamics of Human Movement

1008.126 Movement for the Actor

## Dance Concentration

**Paule Lawrence Turner, Advisor**

**Memorial Hall**

**856-256-4055**

**turnerp@rowan.edu**

The dance concentration is a multi-disciplinary program designed for the serious dance student interested in pursuing dance as a career and for students in the related arts and humanities disciplines who are seeking additional enrichment experiences.

The courses offered provide a solid framework through which students may pursue selected interests in the areas of performance, therapy, history, research and education.

1008.135 Elements of Dance

1008.236 Modern Dance I

1008.237 Modern Dance II

1008.246 Ballet I

1008.247 Ballet II

1008.326 Dance Composition

1008.336 Choreography

1008.436 Dance History

# Theatre Design Concentration

**Bartholomew Healy, Advisor**

**Bunce Hall**

**856-256-4232**

**healy@rowan.edu**

**Phillip Graneto, Advisor**

**Bunce Hall**

**856-256-4392**

**graneto@rowan.edu**

The purpose of this concentration is to provide an art major 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

**18 s.h.**

- |          |                                    |
|----------|------------------------------------|
| 1007.203 | Costuming I                        |
| 1007.205 | Costuming II                       |
| 1007.230 | Stage Craft I                      |
| 1007.231 | Stage Craft II                     |
| 1007.232 | Stage Craft III                    |
| 1007.233 | Stage Craft IV                     |
| 1007.350 | Scene Design Studio                |
| 1007.353 | Stage Lighting Design and Practice |

One course (3 s.h.) from the following:

- |          |                                     |
|----------|-------------------------------------|
| 1007.339 | History of the Theatre to 1700      |
| 1007.340 | History of the Theatre 1700 to 1956 |
| 1007.375 | Theatre Workshop                    |

Living Theatre or Introduction to Theatre are recommended in order to give the student a broad introduction and background in the art of theatre.

# COLLEGE OF LIBERAL ARTS AND SCIENCES

**Jay A. Harper, Dean**

**Bosshart Hall**

**856-256-4850**

**harper@rowan.edu**

**Jin Wang, Associate Dean**

**Bosshart Hall**

**856-256-4853**

**wangj@rowan.edu**

**Cindy Lynch, Assistant Dean**

**Bosshart Hall**

**856-256-4851**

**lynchc@rowan.edu**

## Mission

The College of Liberal Arts & Sciences offers educational experiences designed to enhance the intellectual development, the future careers, and the overall quality of life of our students. The various curricula in the College combine the richness of liberal arts and sciences theories and traditions with applications for the workplace in the new millennium.

## Programs Offered

The College provides General Education courses in the humanities, mathematics and the natural sciences, and the social and behavioral sciences. 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 law, 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.

The College offers minors in most of our disciplines, concentrations in several disciplines, and Interdisciplinary concentrations in African American Studies, Asian Studies, Environmental Studies, International Studies, and Women's Studies. These minors and concentrations, along with the free elective component of their major programs, allow students to complement their major area of study in ways that are particularly appropriate to their individual interests and career goals.

## Departments

The departments in the College are Biological Sciences, Chemistry and Biochemistry, Computer Science, Economics, English, Foreign Languages and Literatures, Geography and Anthropology, History, Law and Justice Studies, Mathematics, Philosophy and Religion, Physics and Astronomy, Political Science, Psychology, and Sociology.

## Services

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.

## Biological Sciences

**Gregory B. Hecht, Chair (Interim)**

**Science Hall**

**856-256-4834**

**hecht@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. Students are encouraged to become engaged in research with faculty members not just as seniors but also as underclassmen.

Students can take advantage of Rowan's affiliations in the areas of osteopathic medicine (University of Medicine & Dentistry of New Jersey and Philadelphia College of Osteopathic Medicine), dentistry (University of Medicine & Dentistry of New Jersey), optometry (Pennsylvania College of Optometry), and podiatry (Temple University School of Podiatric Medicine). These affiliations allow students to earn a combined B.S./doctorate in seven years instead of eight. Additional affiliations include Kirksville College of Osteopathic Medicine, New York School of Podiatric Medicine, Ross University School of Medicine, and Ross University School of Veterinary Medicine. Our Department also has an early acceptance affiliation with the physical therapy program at Drexel University.

Students interested in pursuing a teaching career may complete a series of education courses and obtain a Biological Science Certificate required for public school teaching. Students will also find numerous research opportunities in the Department that will prepare them for graduate research programs.

The Department also offers a Bachelor of Science in Nursing (BSN) Degree Program in conjunction with the University of Medicine and Dentistry of New Jersey-School of Nursing (UMDNJ-SN). Graduates of the Joint BSN Program are awarded the BSN degree by UMDNJ and Rowan University. Both institutions are accredited by the Middle States Association. The Joint BSN Program is also accredited by the National League for Nursing Accrediting Commission (NLNAC).

The Department is housed in a brand new science building with state-of-the-art laboratories and classrooms. The Department also has an environmental field station located in Cape May County, New Jersey. The field station property is an ecotone ranging from marshland to deciduous forest, and provides opportunities for numerous student and faculty research projects.

Students are invited to learn more specifics and recent changes regarding the Department's programs and facilities by visiting at [www.rowan.edu/biology](http://www.rowan.edu/biology)

## Courses for Non-Majors

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:

- 0401.110 Human Biology
- 0420.100 Introduction to Natural Resources
- 0401.112 General Biology: Environmental Focus
- 0401.113 General Biology: Human Focus
- 0401.115 General Biology: Plants & People
- 0401.105 Essentials of Biology
- 0420.401 Principles of Ecology
- 0401.210 Biological Systems and Applications

## Concentrations:

The department offers an Environmental Studies concentration and a Pre-medical concentration. Students interested in these concentrations must meet with the department curriculum coordinator before any courses are attempted.

These concentrations are subject to periodic revision. Students are encouraged and advised to check for the most current biological sciences department curricular requirements.

## B.S. in Biology

Students majoring in Biology are required to take Biology I and II, and an additional 30 semester hours of biology courses, of which at least 24 hours must be in laboratory courses. A course in Special Topics in Biological Sciences is required during the student's Junior or Senior year. Most of the Department's Biology Electives have been assigned to 5 curricular banks : Botany, Zoology, Anatomy/Physiology, Cellular/Molecular Biology, and Ecology/Environmental Sciences/Evolution. Beginning September 2001, every student who enters Rowan as a Freshman, or in September 2003 every student who enters Rowan as a Junior transfer, must complete at least 1 Biology Elective in at least 4 of the 5 curricular banks.

A grade of C- or higher must be earned in each biology course. Transfer students must earn at least 20 s.h. in Rowan University biology courses above the level of Biology I and II 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.

The Department also advises students that course schedules are such that students should not assume that they will be able to complete their degree by enrolling in night courses only.

<b>I. General Education</b>	<b>42 s.h.</b>
(See p. 48 for all-university requirements)	
<i>A. Communications</i>	<i>9 s.h.</i>
<i>B. Social and Behavioral Sciences</i>	<i>6 s.h.</i>
<i>C. History, Humanities and Language</i>	<i>6 s.h.</i>
<i>D. Artistic and Creative Experience</i>	<i>3 s.h.</i>

<i>E. Science and Mathematics</i>	<i>8 s.h.</i>
Required:	
1701.130     Calculus I	
1906.100     Chemistry I	
<i>F. Non-Program Courses</i>	<i>10 s.h.</i>
<b>II. Major Requirements</b>	<b>62 s.h.</b>
<i>A. Common Core</i>	<i>32 s.h.</i>
0401.100     Biology I	
0401.101     Biology II	
1906.101     Chemistry II	
1907.200     Organic Chemistry I	
1907.201     Organic Chemistry II	
1902.202     Physics I	
1902.203     Physics II	
One of the following:	
1701.131     Calculus II	
1702.260     Statistics I	
<i>OR</i>	
Advanced Science course	
<i>B. Biology Electives</i>	<i>30 s.h.</i>
Required:	
0401.440     Special Topics (Senior Seminar)	
<b>III. Free Electives</b>	<b>16 s.h.</b>
<b>IV. Program Total</b>	<b>120 s.h.</b>
<i>Program Banks</i>	
<i>Anatomy/Physiology Bank</i>	
0407.301     Comparative Vertebrate Anatomy	
0410.210     Anatomy and Physiology I	
0410.212     Anatomy and Physiology II	
0410.345     Human Physiology	
0410.350     Work Physiology	
0401.465     Animal Histology	
0427.401     Embryology of Animals	
0427.403     Comparative Embryology	
<i>Botany Bank</i>	
0402.200     Introductory Botany	
0401.201     Pharmacognosy	
0401.300     Phycology	
0401.325     Introduction to Mycology	
0401.420     General Taxonomy	
0402.201     Plant Diversity	
0402.405     Plant Physiology	

*Cellular/Molecular Biology Bank*

- 0401.320 Introduction to Virology
- 0401.321 Introduction to Virology - WI
- 0401.428 Developmental Biology
- 0401.430 Cell Biology
- 0401.435 Cell Culture Technology
- 0401.465 Animal Histology
- 0411.330 Microbiology
- 0411.338 Immunology
- 0411.405 Environmental Microbiology
- 0414.348 Introduction to Biochemistry
- 0414.440 Introduction to Biochemistry - Lecture Only
- 0422.335 Genetics
- 0422.410 Concepts in Human Genetics
- 0422.450 Molecular Genetics

*Ecology/Environmental Sciences/Evolution Bank*

- 0401.310 Evolution
- 0401.405 Conservation Biology
- 0401.407 Systematics and Evolutionary Mechanisms
- 0402.410 Stream Ecology
- 0411.405 Environmental Microbiology
- 0418.360 Marine Biology
- 0418.400 Limnology
- 0420.310 Ecology
- 0420.311 Ecology (WI)
- 0420.321 Physiological Ecology
- 0420.330 Environmental Science
- 0420.425 Environmental Toxicology
- 0420.474 Tidal Marsh Ecology

*Zoology Bank*

- 0401.352 Ornithology
- 0401.356 Parasitology
- 0401.420 General Taxonomy
- 0401.454 Herpetology
- 0401.458 Mammalogy
- 0401.460 Animal Ethology
- 0401.470 Ichthyology
- 0407.200 Invertebrate Zoology
- 0407.301 Comparative Vertebrate Anatomy
- 0421.401 Entomology
- 0427.401 Embryology of Animals
- 0427.403 Comparative Embryology

*Courses for Majors, Not Assigned to a Curricular Bank*

- 0401.100 Biology I
- 0401.101 Biology II
- 0401.440 Special Topics in Biological Sciences
- 0401.450 Independent Study in Biological Sciences
- 0401.475 Biology Lab/Field Research

**Minor in Biological Sciences**

The Minor consists of 23 semester hours (a minimum of 8 of these must be taken at Rowan University). Biology I and II are the only prerequisites for the courses listed. In keeping with the policy of the B.S. Biology program, any Biology grade below a C- will not count within the Minor.

- Biology I
- Biology II
- Biology electives: 4 courses, at least 3 of which are 300 level or higher; at least 2 course from each of THREE banks.
- Students may count up to one transfer course for which there is no Rowan

University equivalent towards the minor. In these instances, the transferred course must be approved by the Biological Sciences Department.

**Pre-Medical Concentration**

**Richard Meagher, Program Advisor**  
**Science Hall**  
**856-256-4500 x3570**  
**meagher@rowan.edu**

**Elizabeth Brooks, Program Advisor**  
**Science Hall**  
**856-256-4500 Ext. 3589**  
**brookse@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:

- 0422.335 Genetics
  - 1902.203 Physics II
  - 1701.131 Calculus I
  - 0414.348 Biochemistry
  - 2001.100 Psychology
- Plus one of the following:
- 1909.250 Quantitative Analysis
  - 0407.301 Comparative Anatomy
  - 0427.401 Embryology
  - 0411.330 Microbiology

## B.S. Nursing

**Barbara Benjamin, Coordinator  
Science Hall  
856-256-4841  
[benjamin@rowan.edu](mailto:benjamin@rowan.edu)**

The general education component of the program is offered by the faculty of Rowan University and the nursing component is offered by the faculty of UMDNJ. Health care facilities and community agencies in southern New Jersey are used as the primary education sites for clinical nursing courses. The Joint BSN Program combines the strengths of Rowan University and UMDNJ to offer a unique educational experience for the baccalaureate student. As a university distinguished for its multicultural education, Rowan University offers an interdisciplinary orientation in its philosophy and purpose. As a preeminent academic health sciences university, UMDNJ offers an interdisciplinary health services network and impacts on government and public affairs in New Jersey. Graduates of this program will be prepared to provide nursing care collaboratively with other health professionals within complex health care systems. These graduates, equipped with the knowledge and skills for professional practice, will be prepared to render quality nursing care as well as effect positive change within health care systems.

The Joint BSN Program admits registered nurses, with an associates' degree or diploma in nursing, and graduates them at the BSN level. Students also have the option of entering the Joint BSN Program with the intention to progress into the MSN Program at UMDNJ-SN.

Matriculated students in the Joint BSN Program may apply for the Advanced Placement Program in the MSN Program of UMDNJ-SN. In this program, students may take two (2) courses at the MSN level (Nursing Research and Pathophysiology) which is then included on the BSN transcript as transfer credits.

### **Admission Requirements for the Joint BSN Program:**

The criteria for admission to the Bachelor of Science in Nursing RN /BSN Program include academic achievement, dependability, scholarship, professional behavior, accountability, and interpersonal skills. Admissions' decisions are based upon review of the following minimum requirements:

1. Graduation from an Associate of Applied Science (A.A.S.) in Nursing Program, an Associate of Science (A.S.) in Nursing Program, or a Diploma in Nursing Program accredited by an appropriate agency or association at the time of graduation from the program.
2. Licensure as a registered nurse in New Jersey. Individuals licensed as registered nurses in other states must be eligible for New Jersey State Board of Nursing licensure as a registered professional nurse.
3. Cumulative grade point average (G.P.A.) of 2.5 or higher.
4. A grade of "C" or higher in all nursing, science, and English composition courses.
5. A minimum score of 550 on the Test of English as a Foreign Language (T.O.E.F.L.) for applicants who are not graduates of a United States college or university.
6. A criminal background check. The criteria for admission to the Bachelor of Science in Nursing Generic Program include academic achievement, dependability, scholarship, professional behavior, accountability, and interpersonal skills.

Physical examination, required immunizations, health and liability insurance (required after acceptance).

### **Requirements for the Major:**

Students must earn 120 credits, meet General Education, School Core, and Major Requirements.

Some major requirements are offered onsite at Rowan University and others on-line via Web-CT. Clinicals are offered at nearby facilities.

Required grades in Nursing courses and Nursing prerequisite courses are determined by the UMDNJ-SN faculty and printed in the UMDNJ-SN Catalog.

## **Chemistry and Biochemistry**

**Robert Newland, Chair**  
**Science Hall**  
**856-256-4502**  
**newland@rowan.edu**

The Department of Chemistry and Biochemistry offers a B.S. in Chemistry and a B.S. in Biochemistry and also co-offers a B.S. in Physical Sciences with the Department of Physics and Astronomy.

### **B.S. in Chemistry**

**Robert Newland, Advisor**  
**Science Hall**  
**856-256-4502**  
**newland@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. All required courses are offered in the evening as well as during the day to permit evening-only students to obtain the degree in a timely manner. 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.

#### **I. General Education**

**43 s.h.**

(See p. 48 for all-university requirements)

<i>A. Communications</i>	<i>9 s.h.</i>
<i>B. Science and Math</i>	<i>11 s.h.</i>
1701.130     Calculus I*	
1701.104     Intro to Scientific Programming	
1902.200     Physics I with Calculus*	
<i>C. Social and Behavioral Sciences</i>	<i>6 s.h.</i>
<i>D. Humanities, History, Languages</i>	<i>6 s.h.</i>
<i>E. Aesthetics</i>	<i>3 s.h.</i>
<i>F. Non Program Electives</i>	<i>8 s.h.</i>
1902.201     Physics II with Calculus*	
1701.231     Calculus II*	

#### **II. Major Requirements**

**62 s.h.**

<i>A. Common Core</i>	<i>50 s.h.</i>
1701.230     Calculus III	
1906.100     Chemistry I*	
<i>OR</i>	
1906.105     Advanced Chemistry I*	
1906.101     Chemistry II*	
<i>OR</i>	

COLLEGE OF LIBERAL ARTS & SCIENCES

1906.106	Advanced Chemistry II*
1907.200	Organic Chemistry I*
1907.201	Organic Chemistry II*
1909.250	Quantitative Analysis
1908.400	Physical Chemistry I
1908.401	Physical Chemistry II
1908.402	Physical Chemistry Lab I
1908.403	Physical Chemistry Lab II
1907.348	Biochemistry I
1906.300	Advanced Inorganic Chemistry
1905.450	Seminar I
1909.410	Instrumental Methods
1905.440	Research I
OR	
1905.435	Co-op Experience in Chemistry

*B. Restricted Electives* 12 s.h.

-8 s.h. must be chosen from upper level chemistry courses, the remainder from subjects closely related to chemistry such as physics, biology, and mathematics.

**III. Free Electives** 15 s.h.

**IV. Total Credits for Program** 120 s.h.

\*These courses require a grade of C or better.

## Minor in Chemistry

**Robert Newland, Advisor**

**Science Hall**

**856-256-4502**

**newland@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** 23-24 s.h.

1906.100	Chemistry I
OR	
1906.105	Advanced Chemistry I
1906.101	Chemistry II
OR	
1906.106	Advanced Chemistry II
1907.200	Organic Chemistry I
1907.201	Organic Chemistry II
1909.250	Quantitative Analysis

And one other course that has Organic Chemistry II as a prerequisite

## B.S. in Biochemistry

**Catherine Yang, Program Advisor**  
**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, molecular biology, genetics or structural biology 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.

### I. General Education

**44 s.h.**

(See p. 48 for all-university requirements)

<i>A. Communications</i>	<i>9 s.h.</i>
<i>B. Science and Math</i>	<i>11-12 s.h.</i>
1701.130     Calculus I*	
1701.131     Calculus II*	
<i>OR</i>	
1702.260     Statistics*	
1902.200     Physics I with Calculus*	
<i>C. Social and Behavioral Sciences</i>	<i>6 s.h.</i>
<i>D. Humanities, History, Languages</i>	<i>6 s.h.</i>
<i>E. Aesthetics</i>	<i>3 s.h.</i>
<i>F. Non Program Electives</i>	<i>8 s.h.</i>
1902.201     Physics II with Calculus*	
0401.100     Biology I*	

### II. Major Requirements

**63 s.h.**

<i>A. Common Core</i>	<i>43 s.h.</i>
0701.102     Introduction to Programming	
<i>OR</i>	
0701.200     Computing Environments	
1906.100     Chemistry I*	
<i>OR</i>	
1906.105     Advanced Chemistry I*	
1906.101     Chemistry II*	
<i>OR</i>	
1906.106     Advanced Chemistry II*	
1907.200     Organic Chemistry I*	

**COLLEGE OF LIBERAL ARTS & SCIENCES**

1907.201	Organic Chemistry II*
1909.250	Quantitative Analysis
1908.305	Biophysical Chemistry
0401.101	Biology II
1907.348	Biochemistry I (with lab)
1907.408	Advanced Biochemistry
1905.450	Seminar I
1905.440	Research I

***B. Restricted Electives***

**20 s.h.**

Chosen with approval of advisor. At least two chemistry courses from the approved list and three biology courses from the following:

0422.450	Molecular Genetics
0401.430	Cell Biology
0411.330	Microbiology

Other appropriate biology course

**III. Free Electives**

**13 s.h.**

Chosen with the help of advisor and with consideration for future educational and career plans.

**IV. Total Credits for Program**

**120 s.h.**

\*Grades of C or better must be earned in these courses.

**B.S. in Physical Sciences  
(with Physics and Astronomy)**

**Robert Newland, Advisor**

**Science Hall**

**856-256-4502**

**newland@rowan.edu**

**Ernst Knoesel, Advisor**

**Science Hall**

**856-256-4366**

**knoesel@rowan.edu**

See the program description listed in the Department of Physics and Astronomy

**Computer Science**

**Jennifer S. Kay, Chair**

**Robinson Hall**

**856-256-4806**

**kay@rowan.edu**

Computer Science deals with data structures, algorithms, problem-solving techniques, programming languages, and the architecture of digital computer systems. The department offers a B.S. in Computer Science. 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 courses in computer literacy and computer programming which are available to all students in the University. Computer facilities include Pentium-based PC's running a variety of operating

systems including Windows and Linux, as well as Unix servers. All of these computers are connected in a high-speed local area network and to the Internet. Students become familiar with a wide variety of computing environments and are not required to purchase their own computers.

## B.S. in Computer Science

**Ganesh R. Baliga, Advisor**

**Robinson Hall**

**856-256-4500 ext. 3890**

**baliga@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.

Three years of high school mathematics is 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. Applicants for graduation must maintain a 2.5 GPA in College Composition I and the courses taken under major requirements, whether they are taken locally or are transferred. 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.

### Course Requirements for Major:

(Note: s.h. stands for semester hours or credits)

<b>I. General Education</b>		<b>46 s.h.</b>
<i>A. Artistic and Creative Experience</i>		<i>3 s.h.</i>
<i>B. Communications</i>		<i>9 s.h.</i>
1501.111     College Composition I		
1501.112     College Composition II		
1506.202     Public Speaking		
<i>C. History, Humanities, and Language</i>		<i>6 s.h.</i>
A course labeled as General Education Literature is required.		
<i>D. Social and Behavioral Sciences</i>		<i>6 s.h.</i>
One of the courses 4901.265 Computers and Society or 4901.266       Computers and Society (WI) is required		
<i>E. Science and Mathematics</i>		<i>16 s.h.</i>
Calculus I (1701.130) is required. 3 classes (including a two-semester sequence) from the following list are required:		
0401.100-101     Biology I, II (4 s.h. each)		
1902.200-201     Physics with Calculus I, II (4 s.h. each)		
1906.100-101     Chemistry I, II (4 s.h. each)		

*F. Non-Program Electives - 6 s.h.*  
 (must be from A,B,C or D categories)

**II. Free Electives** **12 s.h.**

NOTES:

1. One of the above courses must be labeled as Multicultural/Global Studies.
2. One of the above courses must be labeled as Writing Intensive.

**Major Requirements** **62 s.h.**

*A. Required Courses* *50 s.h.*

1703.160	Discrete Structures	
1701.131	Calculus II	4 s.h.
1701.210	Linear Algebra	
1702.360	Probability & Statistics I	
0704.113	Introduction to Object-Oriented Programming	4 s.h.
0704.114	Object-Oriented Programming and Data Abstraction	4 s.h.
0704.222	Data Structures and Algorithms	4 s.h.
0706.205	Computer Organization	
0707.210	Foundations of Computer Science	
0707.321	Principles of Software Engineering	
0704.315	Programming Languages	
0706.310	Principles of Digital Computers	
0706.311	Digital Computer Laboratory	
0707.340	Design and Analysis of Algorithms	
0704.390	Operating Systems	
0704.400	Senior Project	

*B. Restricted Electives* *12 s.h.*

0704.305	Web Programming
0704.327	Power Java
0704.380	Object Oriented Design
0704.392	System Programming and Operating System Internals
0704.394	Distributed Systems
0704.401	Compiler Design
0704.391	Concurrent Programming
0704.394	Distributed Systems
0704.430	Database Systems: Theory and Programming
0706.410	Data Communications and Networking
0706.416	TCP/IP and Internet Protocols and Technologies
0706.412	Advanced Computer Architecture
0706.415	Wireless Networks, Protocols and Applications
0707.310	Robotics
0707.322	Software Engineering Practicum
0707.350	Computer Cryptography
0707.360	Computer Graphics
0701.395	Topics in Computer Science

- 0707.370 Introduction to Information Visualization
- 0707.380 Introduction to Computer Animation
- 0707.422 Theory of Computing
- 0707.450 Artificial Intelligence
- 0707.460 Computer Vision
- 0799.300 Computer Field Experience

## **Minor in Computer Science**

Computer Science deals with data structures, algorithms, problem-solving techniques, programming languages, software engineering and the architecture of modern digital computer systems. The rapid rise in computer usage has led to a corresponding increase in the need for people to work in computer-related positions. The Minor in Computer Science will help students prepare to make effective use of computers in their careers. It is expected to be particularly attractive to students from engineering, business administration, education, the social sciences and the life and physical sciences.

### **Required Courses**

- 0704.103 Computer Science and Programming
- 0704.112 Java for Object-Oriented Programmers
- 1703.160 Discrete Structures
- 0706.205 Computer Organization
- 0704.222 Data Structures & Algorithms
- 0704.114 Object-Oriented Programming and Data Abstraction

### **Elective Courses**

Two courses from the following:

- 0704.315 Programming Languages
- 0706.310 Principles of Digital Computers
- 0704.390 Operating Systems
- 0707.360 Computer Graphics
- 0706.412 Advanced Computer Architecture
- 0707.422 Theory of Computing
- 1701.332 Numerical Analysis
- 0707.210 Foundations of Computer Science
- 0707.340 Design and Analysis of Algorithms
- 0707.450 Artificial Intelligence
- 0706.410 Data Communications and Networking
- 0707.321 Principles of Software Engineering
- 0704.380 Object Oriented Design
- 0707.322 Software Engineering Practicum
- 0707.350 Computer Cryptography
- 0707.370 Introduction to Information Visualization
- 0707.380 Introduction to Computer Animation

*NOTE: A minimum grade point average of 2.0 is required in the courses completed. Also, Introduction to Object-Oriented Programming (0704.113) may be substituted for the two courses Computer Science and Programming (0704.103) and Java for Object-Oriented Programmers (0704.112).*

## 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 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, artificial intelligence, and numerical and scientific computation.

The following table specifies the courses making up each specialization. To obtain one of these specializations, a student must take four or more courses from the specialization's list. An Independent Study 0701.400 course in the area of a specialization will count as a course in that specialization if approved by the student's advisor. The following limitations apply.

An Independent Study 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 course may be used by a student to satisfy the requirements of any particular specialization.

A particular Independent Study course may be used at most once by a student to satisfy the requirements of a specializations

A student may satisfy the requirements of at most two specializations with Independent Study courses.

### Software Engineering

Programming Languages, 0704.315

Design and Analysis of Algorithms, 0707.340

Principles of Software Engineering, 0707.321

Software Engineering Practicum, 0707.322

Object Oriented Design, 0704.380

### Networking and Operating Systems

Operating Systems, 0704.390

Data Communications and Networking, 0706.410

System Programming and Operating System Internals, 0704.392

Advanced Computer Architecture, 0706.412

Wireless Networks, Protocols, and Applications, 0706.415

Concurrent Programming, 0704.391

Distributed Systems, 0704.394

TCP/IP and Internet Protocols and Technologies, 0706.416

### Information Technology

Web Programming, 0704.305

Principles Software Engineering, 0707.321

Operating Systems, 0704.390

Database Systems: Theory and Programming, 0704.430

Data Communications and Networking, 0706.410

## **Programming Languages and Compilers**

Programming Languages, 0704.315  
Object Oriented Design, 0704.380  
Foundations of Computer Science, 0707.210  
Compiler Design, 0704.410  
Principles Software Engineering, 0707.321

## **Artificial Intelligence**

Introduction to Probability and Statistics I, 1702.360  
Foundations of Computer Science, 0707.210  
Introduction to Symbolic Logic, 1509.130  
Artificial Intelligence, 0707.450  
Programming Languages, 0704.315  
Robotics: Software and Mobility, 0707.310; or Computer Vision, 0707.460

## **Numerical and Scientific Computation**

Design and Analysis of Algorithms, 0707.340  
Linear Algebra, 1701.210  
Ordinary Differential Equations, 1701.231  
Computer Graphics, 0707.360  
Numerical Analysis, 1701.332  
Calculus III, 1701.230

## **Graphics and Visualization**

Linear Algebra, 1701.210  
Data Structures and Algorithms, 0704.222  
Introduction to Information Visualization, 0707.360  
Introduction to Computer Animation, 0707.380

## **Economics**

**Bela Mukhoti, Chair**  
**Bunce Hall**  
**856-256-4000 ext. 3322**  
**[mukhoti@rowan.edu](mailto:mukhoti@rowan.edu)**

In Economics, students acquire skills for analyzing important and stimulating national and global problems. Various relevant 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 for careers in the private sector, governmental service, teaching or research. Graduates with the B.A. degree find that employment opportunities are greatest in business and government.

The Department of Economics offers three programs of study (1) B.A. program requiring 36 hours in economics (2) a minor requiring 21 hours in economics and (3) a coordinate major program fulfilling the major study requirements for elementary education majors.

**B.A. in Economics****Program Requirements:****I. General Education****53-54 s.h.**

(See p. 48 of this catalog for all-university requirements)

<i>A. Communications</i>	9-10 s.h.
<i>B. Science and Mathematics</i>	10 s.h.
Required: An introductory statistics course Lab Science choice	
<i>C. Social and Behavioral Sciences</i>	9 s.h.
<i>D. History/Humanities/Language</i>	6 s.h.
<i>E. Artistic and Creative Experience</i>	3 s.h.
<i>F. General Education Electives</i>	14 s.h.

**II. Major in Economics****36 s.h.**

<i>Required Courses</i>	18 s.h.
2204.101 Intro to Economics (Macro)	
2204.102 Intro to Economics (Micro)	
2204.282 Economic Statistics	
2204.301 Intermediate Macroeconomics	
2204.302 Intermediate Microeconomics	
2204.492 Seminar in Economics (WI)	

<i>Economic Electives</i>	18 s.h.
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One multi-cultural/global course is required:

2204.307 Economic Development M/G <i>OR</i>	
2204.320 Contemporary Economic Systems M/G	
2204.200 History of Economic Ideas	
2204.205 American Economic History	
2204.210 Environmental Economics	
2204.215 Current Economic Problems & Policies	
2204.225 Women in the Economy	
2204.269 Selected Topics in Economics	
2204.305 Money and Banking	
2204.310 Global Economics	
2204.315 Public Finance	
2204.324 Centrally Planned Economies	
2204.330 Government and Business	
2204.340 Regional Economics of Southern New Jersey	
2204.345 Labor Economics	
2204.360 Urban Economics	
2204.395 Economics of Personal Financial Planning	
2204.410 Internship in Economics	
2204.541 Managerial Economics (senior standing required)	

<b>III. Free Electives</b>	<b>30 s.h.</b>
<b>IV. Total Credits in Program</b>	<b>120 s.h.</b>

## Minor in Economics

<b>Minor program</b>	<b>21 s.h.</b>
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Required courses:

- 2204.101 Introduction to Economics (Macro)
- 2204.102 Introduction to Economics (Micro)

<i>Economic Electives</i>	<i>15 s.h.</i>
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In consultation with an advisor in the Department of Economics, five courses can be selected from the Departmental offerings with at least two at the junior and senior level.\* Both 2204.301 Intermediate Macroeconomics and 2204.302 Intermediate Microeconomics are strongly recommended.

## English

**Cindy L. Vitto, Chair**

**Bunce Hall**

**856-256-4065**

**[vitto@rowan.edu](mailto:vitto@rowan.edu)**

The English curriculum includes a study of literature, writing, and the English language. Students have many electives which 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 law, sales, personnel work, editing, library science, journalism, teaching, and other professions in which the use of the language is important.

## B.A. in English

**Catherine W. Parrish, Advisor**

**Bunce Hall**

**856-256-4324**

**[parrish@rowan.edu](mailto:parrish@rowan.edu)**

<b>I. General Education</b>	<b>61 s.h.</b>
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(See p. 48 for all-university requirements)

<i>A. Communications</i>	<i>9 s.h.</i>
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<i>B. Science and Mathematics</i>	<i>7 s.h.</i>
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<i>C. Social &amp; Behavioral Sciences</i>	<i>12 s.h.</i>
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<i>D. History/Humanities/Language</i>	<i>12 s.h.</i>
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2205.100 Western Civilization to 1660

2205.101 Western Civilization Since 1660

<i>E. Artistic and Creative Experience</i>	<i>3 s.h.</i>
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<i>F. Non-Program Electives</i>	<i>18 s.h.</i>
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**II. Major Requirements****36 s.h.***A. Required:*

- 1502.101 Literary Studies
- 1502.210 British Literature to Romanticism
- 1502.211 British Literature Since Romanticism
- 1502.213 US Literature to Realism
- 1502.214 US Literature Since Realism
- 1502.250 Shakespeare I
- 1502.393 English Seminar I - WI
- 1502.394 English Seminar II-WI

*B. Of the remaining courses needed to fill the major requirements, at least two must be at the 300 or 400 level.*

**III. Free Electives****24 s.h.****IV. Total Credits in Program****121 s.h.****Minor in English**

**Catherine W. Parrish, Advisor**  
**Bunce Hall**  
**856-256-4324**  
**parrish@rowan.edu**

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.

- 1502.101 Literary Studies
- 1502.250 Shakespeare I
- 1502.393 Seminar I
- 200-level elective
- 300/400-level elective
- 3-course survey sequence (Option A or Option B, below)

**Option A**

- 1502.210 British Literature to Romanticism
- 1502.211 British Literature Since Romanticism
- 1502.113 Readings in US Literature

**Option B**

- 1502.213 US Literature to Realism
- 1502.214 US Literature Since Realism
- 1502.110 Readings in British Literature

## **Environmental Studies**

**David Clowney, Coordinator (Interim)**

**Bunce Hall**

**856-256-4211**

**clowney@rowan.edu**

**Robert Newland, Coordinator (Interim)**

**Science Hall**

**856-256-4502**

**newland@rowan.edu**

### **Bachelor of Arts in Environmental Studies**

The interdepartmental and interdisciplinary Bachelor of Arts in Environmental Studies at Rowan University 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, geology 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 environmental positions in industry, government, and education, as well as placement as strong candidates for graduate programs in environmental sciences.

The program draws primarily on the resources of the Departments of Biological Sciences, Chemistry and Biochemistry, Geography and Anthropology, Philosophy and Religion, Physics and Astronomy, Psychology and Sociology. The program has 50 credits of General Education courses, 50-52 credits in the major and 18-20 credits of free electives. The major has a requirement of 25 credits in a common core, including a one-year Senior Seminar project. The 120 credits can be completed in four years.

### **Goals**

The Bachelor of Arts in Environmental Studies provides a broad, interdisciplinary education with specialization tracks in either the Natural Sciences or the Social Sciences. Grounded in specially-designed courses that link the biological, chemical, physical, and social aspects of the environment, this degree provides students the flexibility to focus their work in any of these areas while obtaining some exposure to each field of knowledge. The program highlights the main concerns regarding our environment, and it is especially useful for individuals seeking a broader knowledge base and a deeper understanding of the environment. The program will be useful for a career in many environmental fields, as well as those in the field of education and law and policy making.

Upon completion of the program, students will:

1. Take a more perceptive view of the environment around them by learning ideas, principles and relationships within and between the different environmental components.
2. Be able to apply analytical, quantitative and problem-solving skills in environmental related issues
3. Be able to identify and apply fundamental concepts and theories in environmental related issues
4. Be able to analyze data and draw reasonable and valid inferences
5. Be able to communicate about environmental related issues
6. Be able to apply techniques, methods and tools used in the environmental field.
7. Have an appreciation for the role and impact of ethics in environmental decisions.

**General Education requirements (50 credits)**

*A. Communication (9 credits)*

College Comp I

College Comp II

Public Speaking

*B. Math and Science (11 credits)*

Statistics I

Physics of Everyday Life

Chemistry of Everyday Life

*C. Social and Behavioral Sciences (12 credits)*

Cultural or Physical Anthropology

Intro to Sociology or Social Problems

Macroeconomics

Cultural Geography (MG)

*D. History, Humanities and Language (9 credits)*

Philosophy of Science (WI)

Foreign Language (\*)

Foreign Language (\*)

(\*) both courses must be in the same language

*E. Artistic and Creative Experience (3 credits)*

*F. Non-program Electives (6 credits)*

Chemistry of the Environment

Free choice (LIT)

The Program

**Major Requirements (44 credits)**

*A. Common Core (25 credits)*

Environmental Studies - Physical Perspectives

Environmental Studies - Social Perspectives

Environmental Ethics

Field Methods and Research Design for Environmental Studies

Environment Policy and Society

Geographic Information Systems (GIS) I

Senior Seminar in Environmental Studies I and II – 1 year (or internship)

*B. Electives (19 credits)- From the Suggested list in each specialization*

*Specialization (select one) (6-8 credits)*

**Natural Science Track**

Required (8 credits)

General Biology: Environmental Focus

Environmental Science

## **Suggested (11 credits)**

Meteorology  
Climatology  
Geographic Information Systems (GIS) II  
Geomorphology  
Physical Geography  
Geology I and II  
Land Use & Resource Development  
Impact Assessment  
Natural Resources  
Environmental Microbiology (\*)  
Environmental Toxicology (\*)  
Physiological Ecology (\*)  
Conservation Ecology (\*)  
Limnology (\*)  
Stream Ecology (\*)  
Marine Biology (\*)  
Ecology (\*)

(\*) All these courses require Biology I and II. Students can substitute Biology I for General Biology: Environmental Focus, and use Biology II as a free elective

## **Social Science Track**

### **Required (6 credits)**

Natural Resources  
Impact Assessment

## **Suggested (13 credits)**

Environmental Economics  
Environmental Law  
Environmental Psychology  
Geographic Information Systems (GIS) II  
Population Geography  
Cultural Ecology  
Sociology of Populations  
Urban Sociology  
Land Use & Resource Development  
Urban Geography  
Metropolitan and Regional Planning  
Free Electives (26 credits)

## **Total Credits**

**120**

# Foreign Languages and Literatures

**Sonia B. Spencer, Chair**  
**Bunce Hall**  
**(856) 256-4044**  
**spencers@rowan.edu**

The department offers a major in Spanish as well as Coordinate education majors in Spanish. It also offers minors in French, German and Spanish (18 s.h. each) and participates in the interdisciplinary International Studies Concentration (18 s.h.). French courses are offered beyond the 18 s.h. minor providing students with the opportunity to accumulate credits toward a second certification.

## B.A. 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.

Courses in translation cannot be counted for credit toward the major.

<b>I. General Education Requirements</b>	<b>52 s.h.</b>
(See p. 48 for all-university requirements)	
<i>A. Communications</i>	<i>9 s.h.</i>
<i>B. Mathematics and Science</i>	<i>7 s.h.</i>
<i>C. History, Humanities, Languages</i> General Education Literature course Two Foreign Language courses other than Spanish. Both courses must be in the same language.	<i>9 s.h.</i>
<i>D. Social and Behavioral Sciences</i>	<i>6 s.h.</i>
<i>E. Artistic and Creative Expression</i>	<i>3 s.h.</i>
<i>F. Non-Program Courses</i>	<i>18 s.h.</i>

## II. Major Requirements 39 s.h.

- 1105.211 Spanish Reading and Conversation
- 1105.212 Spanish Reading and Composition
- 1105.320 Spanish Civilization and Culture
- 1105.321 Survey of Spanish Literature I
- 1105.322 Survey of Spanish Literature II
- 1105.323 Spanish/American Literature
- 1105.324 Spanish/American Civilization and Culture - M/G
- 1105.325 Readings in Contemporary Spanish Literature
- 1105.410 Advanced Spanish Grammar and Composition  
*OR*
- 1105.409 Advanced Spanish Grammar and Composition - W.I.
- 1105.411 Advanced Spanish Conversation

One elective from any Spanish course offered on the 300 or 400 level, as well as at least one course from Group I, and at least one from Group II below.

**Group I**

- 1105.381 Contemporary Spanish Theatre  
 1105.481 Generation of '98  
 1105.482 Modern Spanish Novel

**Group II**

- 1105.327 Spanish/American Poetry  
 1105.328 Spanish/American Theatre  
 1105.383 Spanish/American Short Story  
 1105.426 Spanish/American Novel

**III. Free Electives****30 s.h.****IV. Total Credits in Program****121 s.h.**

Secondary certification students are required to take History of the Spanish Language (1105.400) and Spanish Phonetics (1105.300); one of these courses can be taken as a Specialization Elective within the major.

**Minor in Spanish**

A student who has two or more years of Spanish in high school may start the minor with the intermediate courses and may take additional upper level courses in Spanish to fulfill the minor requirements.

**Spanish Language Minor****18 s.h.**

- 1105.101 Spanish I  
 1105.102 Spanish II  
 1105.201 Spanish III  
 1105.211 Spanish Reading and Conversation  
 Any two upper level courses offered in Spanish

**Minor in French**

**Sonia B. Spencer, Advisor**  
**Bunce Hall**  
**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 desirable but not required.

**French Language Minor****18 s.h.**

- 1102.101 Elementary French I  
 1102.102 Elementary French II  
 1102.201 Intermediate French I  
 1102.211 Intermediate French II  
 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**

**Edward C. Smith, Advisor**  
**Bunce Hall**  
**856-256-4500 X3472**  
**[smithe@rowan.edu](mailto:smithe@rowan.edu)**

The German Minor is an intensive program of study which offers courses in German language, civilization and culture. This 18-hour minor is open to all students and is of particular benefit to those majoring in the sciences, mathematics, music, economics, business or education. It is also useful to students interested in pursuing International Studies or a career where knowledge of a second language is desirable. Previous high school preparation in the language is desirable but not required.

### **German Language Minor**

**18 s.h.**

- |          |                        |
|----------|------------------------|
| 1103.101 | Elementary German I    |
| 1103.102 | Elementary German II   |
| 1103.201 | Intermediate German I  |
| 1103.211 | Intermediate German II |
- Any two upper level courses offered in German

## **Geography and Anthropology**

**Richard Scott, Chair**  
**Robinson Hall**  
**856-256-4812**  
**[scott@rowan.edu](mailto:scott@rowan.edu)**

The department offers four programs in geography. These include a major leading to the bachelor of arts, a minor, an interdisciplinary concentration in cartography and geographical information systems (GIS), and a certificate in cartography and GIS. All of these programs integrate theory and practice, blending both academic and applied facets of geography, planning, cartography, and geographical information systems. In support of its computer applications courses and research program, the department directs two computer labs in which students learn to use the latest, high level GIS software using state-of-the-art hardware platforms and peripherals including large format high resolution plotters and scanners. Students have full access to these labs in which they can pursue class projects and research, often working closely with faculty members. Our department also works closely with the College of Education to ensure that our dual major program meets the requirements and scheduling needs of education majors. Upon graduation geography majors pursue a variety of options including continuing their education at the graduate level, teaching elementary or secondary school, working as planners or as GIS specialists in planning agencies, environmental protection departments, engineering firms, software development firms and in many other areas. Although the department offers most of the advanced courses annually, this is not possible in all cases.

The department also offers anthropology courses in which students are introduced to the study of diverse cultural systems, to archeology and linguistics and to biology as it relates to human evolution and human variation. Courses in anthropology are offered within the general education social and behavioral sciences bank. All anthropology courses are designated multicultural/global as the diversity of world culture, biology and past behavior are the foundation of anthropology. See the general education guide for details.

## B.A. in Geography (Liberal Arts Track, Coordinate Major Track, Cartography and GIS)

**Edward Behm, Program Advisor**

**Robinson Hall**

**856-256-4811**

**behm@rowan.edu**

The geography major keeps the number of required courses to a minimum so that students can design a program of study that meets individual interests and career goals. There are four recommended course sequences: liberal arts track, coordinate major track, cartography and GIS track, and planning track. All tracks begin with the same common core of courses.

### I. General Education

**52-53 s.h.**

(See p. 48 for all-university requirements)

A. Communications	9 s.h.
B. Science and Mathematics	7-8 s.h.
C. Social & Behavioral Sciences	9 s.h.
D. History/Humanities/Languages	9 s.h.
E. Artistic and Creative Experience	3 s.h.
F. Non-Program Courses	15 s.h.

### II. Major Requirements

**37 s.h.**

#### A. Common Core: Required

**16 s.h.**

2206.110 Investigations in Physical Geography

Two of the following three courses: [2206.100, 2206.102, 2206.111]

- 2206.100 Introduction to Geography and Earth Studies (M/G)
- 2206.102 Cultural Geography (M/G)
- 2206.111 World Regional Geography (M/G)
- 2206.193 Intro to the Mapping and Geographic Information Sciences
- 2206.493 Sr Seminar in Geography - WI

#### B. Specialized Electives

**21 s.h. Minimum**

#### 1. Liberal Arts Track

##### a. Geographic Techniques

Choose at least one of the following:

- 2206.306 Cartography
- 2206.307 Directed Geographic Field Experience
- 2206.308 Remote Sensing/Air Photo
- 2206.309 Remote Sensing II
- 2206.315 Field Studies in Geography
- 2206.320 Computer Cartography
- 2206.321 Advanced Cartography
- 2206.350 Quantitative Methods in Geography
- 2206.355 Metropolitan and Regional Planning

- 2206.360 Geographic Information Systems I  
 2206.415 Geographic Information Systems II

*b. Systematic Geography*

Choose at least one of the following:

- 2206.301 Economic Geography  
 2206.302 Urban Geography  
 2206.303 Political Geography  
 2206.304 Population Geography  
 2206.305 Climatology  
 2206.310 Land Use and Resource Development  
 2206.313 Transportation Geography  
 2206.325 Geomorphology

*c. Regional Geography.*

Choose at least one of the following:

- 2206.201 Geography of U.S. and Canada  
 2206.323 Geography of New Jersey  
 2206.342 Geography of Europe  
 2206.343 Geography of Asia  
 2206.344 Geography of Latin America  
 2206.345 Geography of Africa  
 2206.346 Geography of C.I.S. (former Soviet Union)  
 2206.347 Geography of the Middle East

**2. Coordinate Major Track**

*a. Geographic Techniques*

Choose one of the following:

- 2206.306 Cartography  
 2206.308 Remote Sensing/Air Photo  
 2206.320 Computer Cartography  
 2206.355 Metropolitan & Regional Planning  
 2206.360 Geographical Information Systems I

*b. Systematic Geography*

12 s.h.

- 2206.302 Urban Geography  
 2206.304 Population Geography  
 2206.301 Economic Geography

*OR*

- 2206.303 Political Geography  
 2206.305 Climatology

*OR*

- 2206.325 Geomorphology

*c. Regional Geography*

6 s.h.

- 2206.201 Geography of the U.S. and Canada

One additional regional course—see complete selection listed under Liberal Arts track.

**3. Geographical Information Systems and Cartography Track**

*a. Geographic Techniques* 18 s.h.

- 2206.306 Cartography
- 2206.308 Remote Sensing/Air Photo
- 2206.350 Quantitative Methods in Geography
- 2206.360 Geographical Information Systems I
- 2206.415 Geographical Information Systems II

One additional techniques course-see complete selection listed under Liberal Arts track.

*b. Systematic Geography* 3 s.h.

- 2206.301 Economic Geography
- 2206.302 Urban Geography
- 2206.310 Land Use
- 2206.313 Transportation Geography

**4. Planning Track**

*a. Geographic Techniques* 12-15 s.h.

- 2206.306 Cartography
- 2206.308 Remote Sensing/Air Photo
- 2206.355 Metropolitan & Regional Planning
- 2206.360 Geographical Information Systems I
- 2206.315 Field Studies

*OR*

- 2206.415 Geographical Information Systems II

*b. Systematic Geography* 6-9 s.h.

- 2206.302 Urban Geography
- 2206.310 Land Use

Choose one of the following:

- 2206.301 Economic Geography
- 2206.303 Political Geography
- 2206.304 Population Geography
- 2206.305 Climatology
- 2206.325 Geomorphology

*c. Additional Geography Electives not required.*

- 2206.425 Metropolitan/Regional Planning Internship
- 2206.491 Independent Study in Geography

**III. Free Electives**

**30-31 s.h.**

**IV. Total Credits in Program**

**120 s.h.**

## **Minor in Geography (General Geography, Regional Geography, Geographic Techniques)**

**Edward Behm, Advisor**

**Robinson Hall**

**856-256-4811**

**behm@rowan.edu**

The minor in geography is designed for students from a variety of majors who wish to pursue a structured course of study in geography. The minor has three tracks, each consisting of a common core and a set of specialized elective courses.

### **I. General Geography Track**

#### *A. Required Core Courses*

*7 s.h.*

- 2206.110 Investigations in Physical Geography
- 2206.102 Cultural Geography

#### *B. Specialized Electives*

*12 s.h.*

#### **1. Systematic Geography**

Select at least one of the following:

- 2206.301 Economic Geography
- 2206.302 Urban Geography
- 2206.303 Political Geography
- 2206.304 Population Geography
- 2206.305 Climatology
- 2206.310 Land Use
- 2206.313 Transportation
- 2206.325 Geomorphology

#### **2. Regional Geography**

Select at least one of the following:

- 2206.111 World Regional
- 2206.201 U. S. and Canada
- 2206.323 New Jersey
- 2206.342 Europe
- 2206.343 Asia
- 2206.344 Latin America
- 2206.345 Africa
- 2206.346 C.I.S. (former U.S.S.R.)
- 2206.347 Middle East

### **II. Regional Geography Track**

#### *A. Required Core Courses*

*7 s.h.*

- 2206.110 Investigations in Physical Geography
- 2206.111 World Regional

#### *B. Specialized Regional Electives*

*12 s.h.*

- 2206.201 U. S. and Canada
- 2206.323 New Jersey

2206.342	Europe
2206.343	Asia
2206.344	Latin America
2206.345	Africa
2206.346	C.I.S. (former U.S.S.R.)
2206.347	Middle East

### **III. Geographic Techniques Track**

#### *A. Required Core Courses*

*10 s.h.*

2206.110	Investigation in Physical Geography
2206.102	Cultural Geography
2206.193	Intro to the Mapping Sciences

#### *B. Specialized Technical Electives*

*9 s.h.*

2206.306	Cartography
2206.307	Directed Geographic Field Experiences
2206.308	Remote Sensing/Air Photo
2206.309	Remote Sensing II
2206.315	Field Studies
2206.320	Computer Cartography
2206.321	Advanced Cartography
2206.350	Quantitative Methods in Geography
2206.355	Metropolitan & Regional Planning
2206.360	Geographic Information Systems I
2206.415	Geographic Information Systems II

## **Minor in Anthropology**

**Diane Markowitz, Advisor****Robinson Hall****856-256-4500 ext. 3981****markowitz@rowan.edu**

The minor in Anthropology consists of six 3-credit courses. The first three courses constitute a common core taken by all minors. These are:

2202.202	Cultural Anthropology
2202.201	Physical Anthropology
2202.203	Archaeology

Minors select the remaining three courses in consultation with their minor advisor (whom 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. In alternate years, the research course offers special topics which may include Old World Archeology, New World Archeology, Paleoanthropology or Applied anthropology. Interested students may elect to take more courses than the minimum required by the minor.

## Certificate and Concentration in Cartography and Geographical Information Systems

**Richard Scott, Advisor**

**Robinson Hall**

**856-256-4811**

**scott@rowan.edu**

These multi-disciplinary programs enable students from a variety of majors and backgrounds to gain expertise in cartography and geographical information systems. Students who wish to enter the program must meet with the department advisor to plan their curriculum, which will be tailored to the educational and professional objectives of the student. Although all students are welcome to participate in the concentration, those with interests in business (especially marketing), computer science, environmental science, and mathematics may find the program of special interest. The concentration program is designed for students who are currently matriculated at the college and who are pursuing a degree program. The certificate program is designed to accommodate working professionals in planning, public health, engineering, business, and other areas who wish to gain expertise in cartography and GIS. To complete either program, students, in consultation with the advisor, select a total of 21 s.h. from the following courses:

### **Business Courses:**

- 0702.300 Integrated Software Tools for Business
- 0702.338 Design of Database Systems

### **Computer Science Courses:**

- 0701.102 Intro to Programming
- 0704.103 Computer Science & Programming (4 s.h.)
- 0704.222 Data Structures & Algorithms
- 0704.315 Programming Languages

### **Mathematics Courses:**

- 1701.122 Precalculus Mathematics
- 1703.125 Calculus: Techniques and Applications
- 1701.130 Calculus I
- 1701.131 Calculus II
- 1703.150 Discrete Mathematics

### **Geography Courses:**

- 2206.193 Introduction to Mapping and Geographical Information Sciences
- 2206.306 Cartography
- 2206.308 Remote Sensing/Air Photo
- 2206.309 Remote Sensing II
- 2206.310 Land Use & Resource Development
- 2206.313 Geography of Transportation
- 2206.315 Field Studies
- 2206.320 Computer Cartography
- 2206.321 Advanced Cartography
- 2206.350 Quantitative Methods in Geography
- 2206.355 Metropolitan & Regional Planning
- 2206.360 Geographical Information Systems I
- 2206.415 Geographical Information Systems II

# History

**Q. Edward Wang, Chair**  
**Robinson Hall**  
**856-256-4818**  
**wangq@rowan.edu**

With faculty specialties ranging from ancient to modern history, covering America, 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 twelve 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.

## Portfolio

All history majors must develop a portfolio of their historical writing. The portfolio will provide students with a coherent record of their personal growth and development within the discipline. The portfolio can also be used to help students prepare a resume, identify skills that have social (as well as market) value, and prepare for careers and entry into graduate and professional schools.

Students must complete at least SIX of the following assignments and a seminar paper must be included in all portfolios:

1. Historical Essay
2. Numerical Analysis (Assessment of data, charts and tables)
3. Graphic Analysis (Assessment of artifacts, maps, or blueprints)
4. Documentary Analysis using different genres of sources
5. Abstract of one document or article
6. Book Review
7. Library Research Project
8. Bibliographic Essay
9. Periodical Literature Review
10. Peer Assessment (evaluation of other students' written work)
11. Written work selected from any other discipline (any upper level social science or humanities course).
12. Historical Fiction
13. Video
14. Research Proposal
15. Research Paper
16. Internet Analysis

Students should submit portfolio materials on a CD-ROM and submit two weeks after graduation. History majors must have a minimum 2.0 overall G.P.A. and minimum 2.5 in all history courses to qualify for graduation

**B.A. in History****I. General Education** **60 s.h.**

(See p. 48 for all-university requirements)

<i>A. Communications</i>	<i>9-10 s.h.</i>
<i>B. Science and Mathematics</i>	<i>7 s.h.</i>
<i>C. Social and Behavioral Sciences</i>	<i>9 s.h.</i>
<i>D. History/Humanities/Languages</i>	<i>9 s.h.</i>
Two-semester foreign language requirement	
1502.116     Readings in World Literature	
<i>E. Artistic and Creative Experience</i>	<i>3 s.h.</i>
1003.130     Art Appreciation <i>OR</i>	
1006.109     Music Appreciation	

<i>F. Non-Program Courses</i>	<i>23 s.h.</i>
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**II. Major Requirements** **30 s.h.****Lower Level Courses**

2205.100     Western Civilization to 1660

2205.299     Historical Methods

One 100 Level History Elective

Any Level History Elective

**Upper Level Courses**

Any 5 Upper Level History Elective courses

(Two of them ought to be global history courses)

2205.492     Seminar (Seniors)

**III. Free Electives** **30 s.h.**

These electives should be combined with General Education to create two minor fields in areas to be determined by the student with an advisor. These credits may be used for teaching certification.

**IV. Total Credits in Program** **120 s.h.****Minor in History**

This minor 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 perspective into their majors and thus enhance their ability to reach higher levels of achievement in their own professional specialization. We believe that a history minor would enrich upper level history courses for all students because of the increased variety of perspectives brought to such classes by students majoring in different disciplines.

The curriculum will consist of 18 credits in History, including:

1. At least three courses at the 300 or 400 level
2. At least one course, at either the introductory or advance level, must be taken in each of the following areas of concentration: American, European and Global.
3. Minors must maintain at least a 2.5 GPA in history courses
4. Minors are encouraged to take Introduction to Historical Methods

Students pursuing the minor will plan their courses in collaboration with a Department of History advisor in addition to an advisor from their major. All courses for the minor are currently offered within the College of Liberal Arts and Science.

## **Law and Justice Studies**

**Allan Jiao, Chair**

**Wilson Hall**

**856-256-4828**

**jiao@rowan.edu**

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. A departmental advisor is available throughout the student's departmental program. An internship in an appropriate criminal justice or related agency is required in order to provide students with experience, making their class work more meaningful.

### **B.A. 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 general education courses:

- |          |                                    |
|----------|------------------------------------|
| 1501.111 | College Comp I                     |
| 1501.112 | College Comp II                    |
| 1506.202 | Public Speaking                    |
| 1509.110 | The Logic of Everyday Reasoning    |
| 2208.221 | Social Problems                    |
| 2001.100 | Intro. Psych: Pers., Emot., & S.I. |
| 2207.110 | American Government                |

No courses in which the student has earned a grade of less than C- can receive transfer credit within 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.

**I. General Education** **51-52 s.h.**

General Education includes a minimum of 37 semester hours of credit distributed in the following manner. Please see p. 48 of this catalog for all-university requirements.

**A. Communications** 9-10 s.h.

- 1501.111 College Composition I or
- 1501.105 Integrated College Composition I
- 1501.112 College Composition II
- 1506.202 Public Speaking

**B. Math and Science** 7 s.h.

- Required: One lab science and one math course

**C. Humanities, Language and History** 12 s.h.

- Required:
- 1509.110 Logic of Everyday Reasoning or Philosophy and Society
  - One general education literature course.

**D. Social and Behavioral Sciences** 6 s.h.

- Required:
- 2207.110 American Government or
  - 2208.100 Intro to American Government
  - 2208.221 Social Problems

**E. Artistic and Creative Experience** 3 s.h.

Additionally, students are required to complete the following:

**A. Non-Program Courses** 14 s.h.

- 2001.100 Intro to Psychology: Personal, Emotional & Social Interactions

**B. Outside Free Electives** 33 s.h.

NOTE: It is strongly recommended that the student consult a faculty advisor for assistance in making these choices.

**II. Major Requirements** **36 s.h.**

Students must take a minimum of 36 semester hours, including 24 semester hours of core course requirements and 12 semester hours of free electives within the major.

**Required Core Courses** 24 s.h.

- 2105.255 Criminal Law
- 2105.275 Survey of Criminal Justice
- 2105.356 Criminal Justice Internship I
- 2105.369 Theories of Crime & Criminality
- 2105.380 Criminal Justice Research
- 2105.386 Law and Human Rights
- 2105.400 Seminar WI

One of the following

- 2105.202 American Police
- 2105.201 Intro Courts
- 2105.200 Intro Corrections

NOTE: Criminal Justice Internship-2105.356: 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**

- 2105.120 Intro to Security
- 2105.205 Minorities, Crime, and Criminal Justice
- 2105.210 Restorative Justice
- 2105.220 Victimology
- 2105.274 Criminal Justice and Community Relations
- 2105.276 Parole, Probation and Community Corrections
- 2105.285 Criminal Investigation
- 2105.290 Forensic Law
- 2105.305 Law and Evidence
- 2105.310 Criminal Jurisprudence
- 2105.312 Criminal Procedure I
- 2105.315 Criminal Justice and Social Conflict
- 2105.320 Civil Aspects of Law Enforcement
- 2105.322 Drugs and Crime in America
- 2105.324 Sentencing and the Rights of the Convicted
- 2105.330 Problems of World Justice
- 2105.335 Criminal Procedure II
- 2105.337 Treatment of the Offender
- 2105.342 Counseling and Guidance of the Offender
- 2105.346 Women, Crime and Criminal Justice
- 2105.356 Criminal Justice Internship II
- 2105.361 Intro to Juvenile Justice
- 2105.367 Theories of Justice
- 2105.379 Political Prisoner
- 2105.392 Criminal Justice Administration
- 2105.395 Incarceration Experience
- 2105.415 Selected Topics in Criminal Justice

**Total semester hours in program****120 s.h.****Minor in Law and Justice Studies****Herbert Douglas, Advisor****Wilson Hall****856-256-4828****douglas@rowan.edu**

A minor consisting of 21 s.h. in Law and Justice Studies is available to all students. There are two programs from which a student may choose: a specialization in one of the major banks of Law and Justice Studies or a general minor in Law and Justice Studies.

**1. Specialist Program**

Students who wish to specialize in one of the four banks into which the curriculum is divided must take the following courses:

- 2105.275 Survey of Criminal Justice
- 2105.369 Theories of Crime and Criminality
- 2105.386 Law and Human Rights

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In addition, students must take one required course and a minimum of three others within the specialization bank.

### *A. Police Science*

2105.105 American Police (required)

Plus nine s.h. from these courses:

2105.120 Intro to Security

2105.285 Criminal Investigation

2105.290 Forensic Law

2105.320 Civil Aspects of Law Enforcement

2105.468 Seminar: Police Science

### *B. Law*

2105.255 Criminal Law (required)

Plus nine s.h. from these courses:

2105.110 Intro Courts

2105.290 Forensic Law

2105.305 Law and Evidence

2105.310 Criminal Jurisprudence

2105.335 Police Procedure and the Supreme Court

2105.312 Trial Procedure and the Supreme Court

2105.469 Seminar in Law

### *C. Social Justice*

2105.346 Women, Crime and Criminal Justice

*OR*

2105.205 Minorities, Crime and Criminal Justice

Plus nine s.h. from these courses:

2105.210 Restorative Justice

2105.274 Criminal Justice and Community Relations

2105.315 Criminal Justice/Social Conflict

2105.330 Problems in World Justice

2105.379 Political Prisoner

2105.465 Seminar in Social Justice

### *D. Corrections*

2105.115 Introduction to Corrections (required)

Plus nine s.h. from these courses:

2105.276 Parole, Probation and Community Corrections

2105.337 Treatment of the Offender

2105.342 Counseling and Guidance of the Offender

2105.395 Incarceration Experience

2105.341 Seminar: Corrections

## **2. Generalist Program**

All students are required to complete the following five courses:

- 2105.105 American Police
- 2105.110 Introduction to Courts
- 2105.115 Introduction to Corrections
- 2105.369 Theories of Crime and Criminality
- 2105.386 Law and Human Rights

The remaining six s.h. are student's choice to be taken from other course offerings of the department.

**Total semester hours in program**

**21 s.h.**

## **Liberal Studies: American Studies**

**Dianne Ashton, Coordinator and Program Advisor**

**Bunce Hall**

**856-256-4075**

**ashtond@rowan.edu**

**Ellen M. Miller, Advisor**

**Bunce Hall**

**856-256-4075**

**millere@rowan.edu**

The American Studies curriculum is a guided interdisciplinary program that combines structure with choice. The Introduction to American Studies course will help you to synthesize the varying approaches and methods you will master during your college career. You will study in each of the departments in the College of Liberal Arts and Sciences within selected courses addressing issues in American society, culture and geography. The program will introduce you to the diversity of peoples who comprise America. Courses such as Contemporary Social Theory, American Philosophy, Religion in America and American Dramatists will build on the foundation in American Literature and American History that the major provides. The highlight of every major's career is the Senior Seminar in American Studies (12 student maximum), an intense, student participatory 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 apply best to your specific career goals.

The Liberal Studies: American Studies major is housed in the Department of Philosophy and Religion.

Except for free electives, no course can be taken as Pass/Fail and all courses must be completed with a grade of C- or better. Students must either complete the course in Computer Literacy or test out of it before they have completed 30 hours at Rowan. Students who have not completed it by 45 hours will be placed on academic suspension. Students must also take a Rowan Seminar.

Elementary Education Majors must also take History of American Education and Child Development.

## **I. General Education**

**56-57 s.h.**

### *A. Communications/Speech*

*9 s.h.*

- 1501.111 College Composition I

*OR*

- 1501.105 Integrated College Composition I
- 1501.112 College Composition II
- 1506.202 Public Speaking

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<i>B. Math/Science</i>	<i>10 s.h.</i>
One Lab Science	
1701.115   Contemporary Math or	
1703.150   Discrete Math or	
1701.122   Pre-Calculus	
One Free Elective in either Math or any Science	
Elementary Education Majors: please consult State Certification requirements	
<i>C. Social/Behavioral Sciences</i>	<i>9 s.h.</i>
2207.110   American Government	
2206.201   Geography of U.S./Canada	
2208.120   Intro to Sociology	
<i>OR</i>	
2208.221   Social Problems	
<i>D. Humanities</i>	<i>9 s.h.</i>
2205.150   U.S. History to 1865	
2205.151   U.S. History Since 1865	
1502.113   Readings in U.S. Literature	
<i>E. Artistic and Creative Experience</i>	<i>3 s.h.</i>
1003.210   History of American Art	
<i>F. Non Program Electives</i>	<i>21 s.h.</i>
<b>II. Major Courses</b>	<b>36-37 s.h.</b>
At least 15 credits must be 300 or 400 level courses. Introduction to American Studies and the Senior Seminar in American Studies are required of all majors. A 2.30 GPA must be maintained overall. No course may be counted twice; however, any course in the following lists not chosen to fulfill requirements may also be used as a free elective.	
<i>A. Core Choices</i>	<i>15 s.h.</i>
two courses from:	
2204.205   American Economic History	
1509.325   American Philosophy	
2207.400   American Political Thought	
2205.480   History of New Jersey	
2205.322   Civil War and Reconstruction	
2205.413   Urban History of the U.S.	
2205.324   Twentieth Century U.S.	
2205.425   U.S. Labor History	
2205.374   America from 1900-1940	
2205.375   America Since 1945	
2205.472   Issues in American History	
2205.412   Intellectual History of U.S. or	
2205.410   Cultural History of U.S.	
2205.437   American Military History	
2205.330   Colonial North America	
2205.496   History of the Vietnam War	

- 2205.301 History of the Revolution and Early Republic  
 2205.403 History of the American West  
 2205.321 U.S. History of 1820-1861  
 2205.435 History of World War II  
 2205.433 Gilded Age and Progressive Era 1877-1914  
 2205.338 America from War to War

one course from:

- 2207.310 American Constitutional Law  
 2207.340 Civil Rights & Civil Liberties  
 2207.232 Current Issues in American Politics  
 2208.331 Classical Sociological Theory  
 2208.341 Sociological Theory  
 2105.312 Supreme Court  
 2105.322 Drugs/Crime in America  
 1509.241 Philosophy & Society

two courses from:

- 1502.213 U.S. Literature to Realism  
 1502.214 U.S. Literature Since Realism  
 1502.322 Literature of the American Renaissance  
 1502.423 The American Novel  
 1502.327 Modern American Poetry  
 1007.360 Musical Theatre  
 1502.424 American Dramatists  
 1010.372 American Film Directors  
 1502.228 The Modern Short Story  
 1502.425 Contemporary Fiction in the United States  
 1502.301 American English Grammar

*B. Gender, Race and Class*

9 s.h.

One course from each group:

**Group 1.**

- 2205.419 Women in Western Civilization  
 2001.200 Psychology of Women  
 2205.422 Women in American History  
 1010.272 Images of Women in Film  
 2208.493 Seminar on Gender Roles  
 2208.370 Sociology of Women in Society  
 2207.211 Women and American Politics  
 1502.200 Women in Literature  
 2105.346 Women, Crime & Criminal Justice

**Group 2.**

- 2208.230 Sociology of Minority Groups  
 2207.323 Politics of Race, Poverty, Welfare  
 1502.216 Afro-American Literature  
 2202.350 Comparative Cultures  
 2202.325 American Ethnography  
 2202.310 Indians of North America  
 1510.210 Religion in America  
 2205.368 African American History to 1865  
 2205.369 African American History Since 1865  
 1502.217 U.S. Literature of Latino & Hispanic Peoples \* Permission of the Instructor Required

**Group 3.**

- 2208.330 Social Stratification  
 2208.320 Urban Sociology  
 2208.380 Social Psychology of City Life  
 2206.302 Urban Geography  
 2206.323 Geography of New Jersey  
 2208.336 Sociology of Education  
 2208.326 Sociology of the Child Through Adolescence

*C. The U.S. & International Relations*

6 s.h.

Two courses from:

- 2205.414 Diplomatic History of U.S. to 1900  
 2205.415 Diplomatic History of U.S. Since 1900  
 2207.320 International Relations  
 2207.421 International Organizations  
 2204.310 International Economics  
 2207.420 International Law  
 2207.330 Contemporary U.S. Foreign Policy  
 2205.441 Imperialism/Colonialism  
 2204.307 Economic Development of Emerging Nations  
 2204.365 Agricultural Economics  
 2207.230 Comparative Political Systems  
 2207.231 Contemporary World Problems  
 2204.320 Contemporary Economic Systems  
 2206.303 Political Geography  
 2208.327 Comparative Education

*Required of all Majors and Coordinate Majors:*

6 s.h.

- 0313.201 Introduction to American Studies  
 0313.402 Senior Seminar in American Studies - WI

**III Free Electives****26-28 s.h.**

Any course listed in the student guide may also be used as a Free Elective. No course can fulfill more than one requirement.

**IV. Total Credits in Program****120 s.h.**

# Liberal Studies: Math/Science

**Paul J. Laumakis, Coordinator**

**Robinson Hall**

**856-256-4500 x3872**

**laumakis@rowan.edu**

**Michael W. Grove, Program Advisor**

**Science Hall**

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The Math/Science specialization of the Liberal Studies major is an interdisciplinary program in mathematics, biological science, earth science, chemistry, computer science, and physics. 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 19 semester hours of required lower level courses and 17 semester hours of upper level courses. These courses build on the university's general education requirements (see p. 38 for detail)

## I. General Education

**56 s.h.**

Elementary Education double majors should select General Education courses to meet NJ Certification requirements.

### A. Communication

**9 s.h.**

1501.111-112 College Composition I & II

1506.202 Public Speaking

### B. Mathematics and Science

**11 s.h.**

1902.150 Physics of Everyday Life

1905.102 Chemistry of Everyday Life

1702.260 Statistics I

### C. History/Humanities/Languages

**6 s.h.**

1509.110 Logic of Everyday Reasoning

HHL choice

### D. Social and Behavioral Sciences

**6 s.h.**

SBS choice

SBS choice

### E. Arts

**3 s.h.**

### F. Non-Program Electives

**21 s.h.**

0701.100 Computer Literacy

*OR*

Computer competency exam

1509.369 Philosophy of Science (WI)

Choice (5 courses)

<b>II. Major Requirements</b>	<b>36-37 s.h.</b>
<i>A. Lower-Level Courses</i>	<i>19-20 s.h.</i>
1917.110 Principles of Earth Science	
0401.105 Essentials of Biology	
0701.102 Introduction to Programming	
1701.201 Structures of Mathematics	
1703.150 Discrete Mathematics	
1911.120 Astronomy <i>OR</i>	
1911.221 Solar System	
<i>B. Upper-Level Courses</i>	<i>17 s.h.</i>
1703.305 Patterns in Nature I: Visual Geometry	
4902.315 Patterns in Nature II: Projects in Calculus and Physics	
1905.301 Chemistry of the Environment	
0420.401 Principles of Ecology	
4902.492 Senior Seminar	
<b>III. Free Electives</b>	<b>28-27 s.h.</b>
Required:	Pre-Calculus if needed as a prerequisite for Statistics I and Discrete Math.
<b>IV. Total Credits in Program</b>	<b>120 s.h.</b>

## Mathematics

**Ronald Czochor, Chair**  
**Robinson Hall**  
**856-256-4844**  
**[czochor@rowan.edu](mailto:czochor@rowan.edu)**

The Department offers a B.A. and a B.S. 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. 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 20 full-time and 3 part-time faculty is excellence in teaching, Department members also do research in statistics, analysis, algebra, mathematics education, geometry, and applied mathematics. The Department also sponsors the Mathematics Club, student competitions, an active faculty-student research agenda, and a regular seminar series. The Department is located in Robinson Hall which houses several microcomputer labs and classrooms.

### B.A. in Mathematics

The Mathematics major consists of 120 semester hours and follows the B.A. Degree model for General Education. The major requires students to take courses in logic, physics, communications, 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 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-.

<b>1. General Education</b>	<b>51 s.h.</b>
<i>A. Communications</i>	<i>9 s.h.</i>
1501.111 College Composition I	
1501.112 College Composition II	
1506.202 Public Speaking	
<i>B. Science and Mathematics</i>	<i>14 s.h.</i>
1703.150 Discrete Mathematics	
1902.200 Physics I (for scientists and engineers)	
1902.201 Physics II (for scientists and engineers)	
0701.104 Intro to Scientific Programming	
<i>C. Social and Behavioral Sciences</i>	<i>6 s.h.</i>
<i>D. History, Humanities, Languages</i>	<i>6 s.h.</i>
1509.130 Intro to Symbolic Logic	
<i>E. Artistic and Creative Experience</i>	<i>3 s.h.</i>
<i>F. Non-Program Electives</i>	<i>13 s.h.</i>
One course must be Multicultural/Global (M/G) and one must be designated Literature (LIT)	
<b>2. Free Electives</b>	<b>30s.h.</b>
<b>3. Major Courses</b>	<b>39 s.h.</b>
<i>A. Required Courses</i>	<i>30 s.h.</i>
1701.130 Calculus I (4 s.h.)	
1701.131 Calculus II (4 s.h.)	
1701.230 Calculus III (4 s.h.)	
1701.210 Linear Algebra	
1701.340 Modern Algebra I	
1701.231 Ordinary Differential Equations	
1701.330 Introduction to Real Analysis I	
1702.360 Introduction to Probability & Statistics I	
1701.499 Mathematics Seminar	
<i>B. Restricted Electives</i>	<i>9 s.h.</i>
1701.205 Technological Tools for Discovering Math (2 s.h.)	
1701.310 College Geometry (4 s.h.)	
1701.430 Intro. to Complex Analysis	
1701.332 Numerical Analysis	
1701.331 Intro. to Real Analysis II	
1701.341 Modern Algebra II	

- 1701.354 Intro. to Topology
- 1701.352 Theory of Numbers
- 1701.386 Intro. to Partial Differential Equations
- 1701.410 History of Mathematics
- 1702.361 Introduction to Probability and Statistics II
- 1703.400 Applications of Mathematics
- 1703.411 Deterministic Models in Operations Research
- 1703.412 Stochastic Models in Operations Research

Note: College Geometry is required for mathematics majors seeking certification as secondary education teachers.

#### **4. Total Credits in Program**

120 s.h.

## **B.S. in Mathematics**

The B.S. in Mathematics consists of 120 semester hours and follows the B.S. Degree model for General Education. The major requires students to take courses in logic, physics, communications, 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, 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-.

## **Course Requirements**

This major consists of 120 semester hours and follows the Bachelor of Science degree model. Unless noted, all courses are 3 s.h.

For each of the first five banks, only the courses listed in the General Education Guide in the given bank may be selected. Non-Program Electives may be selected from all courses offered in the College of Liberal Arts and Sciences, courses listed in the General Education banks, or the course Health and Wellness.

## **1. General Education**

44 sh

#### *A. Communications*

g.s.h.

- |          |                        |
|----------|------------------------|
| 1501.111 | College Composition I  |
| 1501.112 | College Composition II |
| 1506.202 | Public Speaking        |

## *B. Science and Mathematics*

14 s.h.

- |          |   |
|----------|---|
| 1703.150 | Discrete Mathematics                      |
| 1902.200 | Physics I (for scientists and engineers)  |
| 1902.201 | Physics II (for scientists and engineers) |
| 0701.104 | Intro to Scientific Programming           |

<i>C. Social and Behavioral Sciences</i>	<i>6 s.h.</i>
<i>D. History, Humanities, Languages</i>	<i>6 s.h.</i>
1509.130   Intro to Symbolic Logic	
<i>E. Artistic and Creative Experience</i>	<i>3 s.h.</i>
<i>F. Non-Program Electives</i>	<i>6 s.h.</i>
One course must be Multicultural/Global (M/G) and one must be designated Literature (LIT)	
<b>2. Free Electives</b>	<b>12 s.h.</b>
<b>3. Major Courses</b>	<b>64 s.h.</b>
<i>A. Required Courses</i>	<i>53 s.h.</i>
1701.130   Calculus I (4 s.h.)	
1701.131   Calculus II (4 s.h.)	
1701.230   Calculus III (4 s.h.)	
1701.210   Linear Algebra	
1701.231   Ordinary Differential Equations	
1701.310   College Geometry (4)	
1701.330   Intro to Real Analysis I	
1701.331   Intro to Real Analysis II	
1701.332   Numerical Analysis	
1701.340   Modern Algebra I	
1701.341   Modern Algebra II	
1701.354   Intro to Topology	
1701.430   Intro to Complex Analysis	
1701.499   Mathematics Seminar - WI	
1702.360   Probability & Statistics I	
1902.300   Modern Physics (4 s.h.)	
<i>B. Restricted Electives</i>	<i>12 s.h.</i>
1702.361   Probability & Statistics II	
1703.400   Applications of Mathematics	
1703.411   Deterministic Models in Operations Research	
1703.412   Stochastic Models in Operations Research	
1701.386   Intro to Partial Differential Equations	
1701.352   Theory of Numbers	
1701.410   History of Mathematics	
1703.350   Adv Topics in Discrete Math	
0707.340   Design & Anal. of Algorithms	
0707.422   Theory of Computing	
1902.325   Mathematical Physics	
<b>4. Total Credits in Program</b>	<b>120 s.h.</b>

## Minor in Mathematics

The study of Mathematics enables people to understand the nature and functioning of different mathematical systems and the process of solving problems. 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 will be 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 (except for students majoring in engineering), including 15 semester hours in required core courses and six semester hours in either applied mathematics or theoretical mathematics. The choice of coursework depends on the student's goals and should be decided in consultation with the department chairperson or the mathematics advisement coordinator.

### **Track I (not engineering)**

Required courses (15 semester hours):

- 1701.130 Calculus I
- 1701.131 Calculus II
- 1701.230 Calculus III
- 1701.210 Linear Algebra

Two courses (at least 6 semester hours) from:

- 1701.231 Differential Equations
- 1701.310 College Geometry
- 1701.330 Intro to Real Analysis I
- 1701.331 Intro to Real Analysis II
- 1701.332 Intro to Numerical Analysis
- 1701.340 Modern Algebra I
- 1701.341 Modern Algebra II
- 1701.352 Theory of Numbers
- 1701.354 Topology
- 1702.360 Intro to Probability and Statistics I
- 1702.361 Intro to Probability and Statistics II
- 1701.386 Intro to Partial Differential Equations
- 1703.400 Applications of Mathematics
- 1703.411 Deterministic Models in Operations Research
- 1703.412 Stochastic Models in Operations Research
- 1701.430 Intro to Complex Analysis

### **Track 2 (engineering)**

Required courses (16 credits):

- 1701.130 Calculus I
- 1701.131 Calculus II
- 1701.235 Math/Eng. Analysis I
- 1701.236 Math/Eng. Analysis II

Two courses (at least 6 semester hours) chosen from:

- 1701.210 Linear Algebra
- 1701.310 College Geometry
- 1701.330 Intro to Real Analysis I

1701.331	Intro to Real Analysis II
1701.332	Intro to Numerical Analysis
1701.340	Modern Algebra I
1701.341	Modern Algebra II
1701.352	Theory of Numbers
1701.354	Topology
1702.360	Intro to Probability and Statistics I
1702.361	Intro to Probability and Statistics II
1701.386	Introduction to Partial Differential Equations
1703.400	Applications of Mathematics
1703.411	Deterministic Models in Operations Research
1703.412	Stochastic Models in Operations Research
1701.430	Introduction to Complex Analysis

## 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:

**18 s.h.**

1701.210	Linear Algebra
1701.231	Ordinary Differential Equations
1701.332	Numerical Analysis
1702.360	Probability and Statistics I
1703.400	Applications of Mathematics
0701.	One course in Computer Science (Not 0701.100)

### Elective courses (one):

**3 s.h.**

1701.430	Complex Analysis
1702.361	Probability and Statistics II
1703.411	Deterministic Models in Operations Research
1703.412	Stochastic Models in Operations Research
1902.315	Analytical Mechanics
1902.325	Mathematical Physics

## Concentration in Statistics

The Statistics Concentration consists of 18 credit hours. Nine hours of required courses and nine hours of electives as listed below:

### Required courses

**9 s.h.**

1702.260	Statistics I or
2007.311	Statistical and Research Methods in Psychology I
1702.261	Statistics II
<i>OR</i>	
2007.312	Statistical and Research Methods in Psychology II
1702.371	Statistical Design of Experiments I

<b>Electives</b>		<b>9 s.h.</b>
1702.260	Probability and Statistics I	
1702.261	Probability and Statistics II	
1702.372	Statistical Design of Experiments II	
0509.384	Research Methods in Marketing	
0699.361	Introduction to Survey Research	
2206.350	Quantitative Methods in Geography	
2204.282	Economic Statistics	
2208.421	Sociological Methods and Statistics	

## Philosophy and Religion

**David Clowney, Chair**  
**Bunce Hall**  
**(856) 256-4211**  
**clowney@rowan.edu**

### Minor in Philosophy

**David Clowney, Advisor**  
**Bunce Hall**  
**856-256-4211**  
**clowney@rowan.edu**

The Philosophy Minor is designed to introduce students to the tradition of philosophical reflection, and to complement and enhance a student's major field of study with courses such as Business Ethics, Philosophy of Science, Philosophy and Society, Aesthetics, and Philosophy of Mind. At the conclusion of the Minor sequence, students register for Selected Topics in Philosophy in order to pursue an independent project (3 s.h.) which integrates their work in philosophy with their major field(s) of study.

<b>Philosophy Minor</b>	<b>21 s.h.</b>
<b>Required Courses</b>	
1509.120	Introduction to Philosophy
1509.110	Logic of Everyday Reasoning
<i>OR</i>	
1509.130	Introduction to Symbolic Logic
1509.220	Survey of Western Philosophy
1509.226	Philosophy of Mind
<i>OR</i>	
1509.240	Philosophy and Society
<i>OR</i>	
1509.322	Business Ethics
<i>OR</i>	

- 1509.368 Philosophy of Science  
*OR*  
 1509.310 Aesthetics  
 1509.440 Selected Topics in Philosophy

**Elective Courses** **6 s.h.**

Students may select any other philosophy courses offered including those options not taken from the required list.

## **Concentration in Philosophy and Religion**

**David Clowney, Advisor**  
**Bunce Hall**  
**856-256-4211**  
**clowney@rowan.edu**

The combined Concentration in Philosophy and Religion offers an opportunity to pursue either philosophy or religion in greater depth, or both in equal degree, according to personal interest.

**Philosophy and Religion Concentration** **18 s.h.**

**Required Courses** **6 s.h.**

- 1509.120 Introduction to Philosophy  
 1510.100 Introduction to Religion

**Elective Courses** **12 s.h.**

Elective courses must be distributed in one of the following patterns: 2 in philosophy and 2 in religion; or 1 in philosophy and 3 in religion; or 3 in philosophy and 1 in religion. At least 2 of these electives must be upper division courses.

## **Physics and Astronomy**

**Jeffrey D. Hettinger, Chair**  
**Science Hall**  
**856-256-4397**  
**hettinger@rowan.edu**

The Department of Physics offers a B.S. in Physics and a B.S. in Physical Sciences with specialization in General Science.

### **B.S. in Physics**

**Ernst Knoesel, Advisor**  
**Science Hall**  
**856-256-4366**  
**knoesel@rowan.edu**

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 and condensed matter/materials science, theoretical physics including optical physics and high-energy physics, and in planetary science/astronomy researching comets, Mars, and deep space

**COLLEGE OF LIBERAL ARTS & SCIENCES**

objects. Many opportunities exist for student/faculty collaborative research. These activities are beneficial to the development of students' analytical skills and are strongly encouraged.

**I. General Education** **45 s.h.**

*A. Communications* *9 s.h.*

- |          |                        |
|----------|------------------------|
| 1501.111 | College Composition I  |
| 1501.112 | College Composition II |
| 1506.202 | Public Speaking        |

*B. Science and Math* *15 s.h.*

- |          |                                 |
|----------|---------------------------------|
| 0701.104 | Intro to Scientific Programming |
|----------|---------------------------------|

*OR*

- |          |                                  |
|----------|----------------------------------|
| 0704.103 | Computer Science and Programming |
| 1701.130 | Calculus I                       |
| 1906.100 | Chemistry I                      |
| 1906.101 | Chemistry II                     |

*C. Social and Behavioral Sciences* *6 s.h.*

*D. Humanities, History, Languages* *6 s.h.*

- |          |                            |
|----------|----------------------------|
| 1509.369 | Philosophy of Science (WI) |
|----------|----------------------------|

*OR*

alternate course approved by advisor

*E. Artistic and Creative Experiences* *3 s.h.*

*F. Non-Program Courses* *6 s.h.*

Note: At least one Gen. Ed. course must be designated as a LIT course, at least one designated as M/G, and at least one designated as WI (the WI course must be taken after completing College Composition II). Non-program courses are any courses outside the 1902 program code. All student must also pass the Computer Competency Exam or take Computer Literacy.

**II. Major Requirements** **60-62 s.h.**

*A. Collateral Required Courses* *11 s.h.*

- |          |                        |
|----------|------------------------|
| 1701.131 | Calculus II            |
| 1701.230 | Calculus III           |
| 1701.231 | Differential Equations |

*B. Physics Required Courses* *35 s.h.*

- |          |                                    |
|----------|------------------------------------|
| 1902.140 | Physics of Current Technologies-RS |
| 1902.200 | Physics I (with calc)              |
| 1902.201 | Physics II (with calc)             |
| 1902.300 | Modern Physics                     |
| 1902.315 | Analytical Mechanics               |
| 1902.430 | Electricity and Magnetism I        |
| 1902.401 | Quantum Mechanics I                |
| 1902.387 | Statistical Physics                |
| 1902.440 | Advanced Lab                       |

**C. Physics Electives****6-8 s.h.**

Two courses chosen from:

- 1902.431 Electricity and Magnetism II  
 1902.402 Quantum Mechanics II  
 1902.399 Electric Circuits  
 1902.305 Optics and Light  
 1901.310 Independent Study  
 1902.470 Selected Topics  
 1902.211, 212, 311, and 411 Physics Research I, II, III, IV

(A maximum of 3 s.h. of Physics Research can be credited toward elective hours.)

**Restricted Electives****6-8 s.h.**

(Choose 2-3 courses. A maximum of 3 s.h. of Physics Research can be credited toward restricted elective hours.)

- Any Physics Elective listed above  
 An approved Physics course (permission of advisor)  
 An approved Astronomy course (permission of advisor)  
 An approved Atmospheric Science course (permission of advisor)  
 An approved Earth Science course (permission of advisor)  
 An approved Materials Science course (permission of advisor)  
 An approved Engineering course (permission of advisor)  
 An approved Mathematics course (permission of advisor)  
 An approved Chemistry course (permission of advisor)  
 An approved Computer Science course (permission of advisor)  
 An approved Biology course (permission of advisor)

**III. Free Electives****13-15 s.h.****IV. Total Credits for Program****120 s.h.****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****18-20 s.h.**

- 1902.200 Physics I (with calc)  
*OR*  
 1902.202 Physics I (non-calc)  
 1902.201 Physics II (with calc)  
*OR*  
 1902.203 Physics II (non-calc)  
 1902.300 Modern Physics  
 And any two Physics courses at or above the 300 level

**B.S. in Physical Science (with Chemistry and Biochemistry)****Robert Newland, Advisor****Science Hall****856-256-4502****newland@rowan.edu****Ernst Knoesel, Advisor****Science Hall****856-256-4366****knoesel@rowan.edu**

The B.S. in Physical Science is a joint program of the Department of Physics & Astronomy and the Department of Chemistry and Biochemistry. It provides a broad background in the physical sciences with specializations in chemistry or general science. 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.

**I. General Education****44 s.h.***A. Communications**9 s.h.*

- 1501.111 College Composition I
- 1501.112 College Composition II
- 1506.202 Public Speaking

*B. Science and Math**11 s.h.*

- 0401.100 Biology I or 0401.101 Biology II
- 1701.130 Calculus I
- 0701.104 Intro to Scientific Programming

*C. Social and Behavioral Sciences**6 s.h.**D. Humanities, History and Languages**6 s.h.*

- 1509.369 Philosophy of Science *OR* other approved by advisor

*E. Artistic and Creative Experiences**3 s.h.**F. Non-Program Courses**9 s.h.*

Note: At least one Gen. Ed. course must be designated as a LIT course, at least one designated as M/G, and at least one designated as WI (the WI course must be taken after completing College Composition II). Non-program courses are any courses outside the 1902 program code. All student must also pass the Computer Competency Exam or take Computer Literacy.

**II. Major Requirements****60-64 s.h.***A. Common Core**43-44 s.h.*

- 1701.131 Calculus II
- 1902.140 Physics of Current Technologies-RS
- 1902.200 Physics I (with calc)
- 1902.201 Physics II (with calc)
- 1902.300 Modern Physics
- 1906.100 Chemistry I
- 1906.101 Chemistry II

1907.200	Organic Chemistry	
1909.350	Quantitative Analysis	
1911.241	Astronomy & Astrophysics	
	An approved Astronomy, Atmospheric Science, or Oceanography course	

*B. Specialization (Choose Chemistry or General Science)*

<i>Chemistry</i>		<i>16-17 s.h.</i>
1907.201	Organic Chemistry II	
1908.400	Physical Chemistry I	
1908.402	Physical Chemistry Lab I	
0414.348	Biochemistry	
	An approved Chemistry Elective	
<i>General Science</i>		<i>17-20 s.h.</i>
	An approved 300-level Physics course	
	An approved 300-level Physics or Chemistry course	
	Choose one from Geology, Investigations in Physical Geography, or an approved Biology Course.	
	Two approved courses possibly leading to certification, minor, or concentration.	

**III. Free Electives** *12-16 s.h.***IV. Total Credits in Program** *120 s.h.*

\*Students in the General Science specialization may substitute Physics I and II (non-calc), but it is strongly recommended that calculus-based physics be taken.

**Minor in Astronomy**

**David R. Klassen, Program Advisor**  
**Science Hall**  
**856-256-4391**  
**[klassen@rowan.edu](mailto:klassen@rowan.edu)**

An Astronomy Minor is available to any student desiring a more advanced study of astronomy and astrophysics. This minor is especially useful for physics majors who are thinking about graduate work in astronomy or astrophysics.

1911.221	Exploration of the Solar System	3
1911.231	Methods and Techniques in Modern Astronomy	4
1911.241	Astronomy & Astrophysics	4
1911.209, 212, 311, 411	Astronomy Research	3
1902.305	Optics and Light	4

Choice of any 1 Physics or Astronomy course at the 300 level or above or approved math/science elective 3-4 s.h.

# Political Science

**Bernadyne Weatherford, Chair**  
**Robinson Hall**  
**856-256-4866**  
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The Political Science Department offers a major program of 39 credits leading to a B.A. degree, and a minor program consisting of 21 credits. These programs are open to all students who envision careers as lawyers, government managers and administrators, public policy analysts, journalists, intelligence officers, diplomatic service officers, teachers, lobbyists, public opinion analysts, legislative aides, or any other career in government or business which requires a broad liberal arts background.

The major program aims at ensuring both breadth of knowledge of the discipline and in-depth studies in areas of the student's greatest interest. The total degree model requires 39 credits in the major, 46 credits in specific general education courses, 14 credits in elective upper level courses in the College of Liberal Arts and Sciences and/or in general education courses, and 21 credits of free elective courses for a total of 120 credits for graduation. A grade of C- or better must be earned in all Political Science courses. In addition, all students are required to take courses designated as Writing Intensive, Multicultural/ Global, and a course designated as LIT.

## B.A. in Political Science

<b>I. General Education</b>	<b>60 s.h.</b>
(See p. 48 for all-university requirements. Substitutions for the following courses may NOT be made without an advisor's approval.)	
<i>A. Communications</i>	<i>9 s.h.</i>
1501.111 College Composition I	
1501.112 College Composition II	
1506.202 Public Speaking	
<i>B. Science and Math</i>	<i>10 s.h.</i>
1702.100 Elementary Statistics	
<i>OR</i>	
1702.260 Statistics I	
Laboratory Science	
<i>C. Social and Behavioral Sciences</i>	<i>12 s.h.</i>
4904.102 Intro to Social Sciences	
2204.101 Intro to Macroeconomics	
2240.102 Intro to Microeconomics	
2206.111 World Regional Geography	
<i>D. History, Humanities and Language</i>	<i>12 s.h.</i>
2205.100 Western Civ I	
<i>OR</i>	
2205.150 U.S. History I	
2205.101 Western Civ II	
<i>OR</i>	

- 2205.151 U.S. History II  
 1509.110 Logic of Everyday Reasoning  
*OR*  
 1509.130 Symbolic Logic  
 A Masterpieces or Readings Lit Course

*E. Artistic and Creative Experience* *3 s.h.*

- 1006.102 General Music History  
*OR*  
 1003.103 History of Art

*F. Non Program Courses* *14 s.h.*

**II. Basic Major Requirements** **27 s.h.**

- 2207.110 American Government  
 2207.200 Survey Western Political Theory  
 2207.230 Comparative Political Systems  
 2207.310 American Constitutional Law  
 2207.320 International Relations  
 2207.360 Methodology and Statistics in Political Science Research  
 2207.490 Seminar in Political Science  
 2102.490 Public Service Intern-ship (6 s.h.)  
*OR*  
 2102.320 Public Administration  
 AND one of the following:  
 2207.220 State & Local Governments  
 2207.415 Indepth Study of Supreme Court  
 2207.421 International Organizations

**III. Political Science Electives** **12 s.h.**

Distribution of electives: a minimum of two courses (6 s.h.) in one of the three areas below, and one course (3 s.h. each) in each of two other areas.

*A. American Politics/Public Administration:*

- 2207.210 Black Americans & American Politics  
 2207.211 Women & American Politics  
 2207.220 State and Local Government  
 2207.232 Current Problems of American Politics  
 2207.303 Campaigns, Political Parties, and Interest Groups  
 2207.305 The Legislative Process  
 2207.306 The Presidency  
 2207.323 Politics of Race, Poverty, and Welfare in the U.S.  
 2207.370 Special Topics in Political Science (according to topic)  
 2207.400 American Political Thought  
 2207.401 Contemporary Political Thought  
 2207.410 Public Policy  
 2207.491 Independent Study (according to topic)

**B. Multi-Cultural/Global Studies and International & Comparative Politics:**

- 2207.231 Contemporary World Problems
- 2207.240 Intro to Asian Political Systems
- 2207.330 Contemporary U.S. Foreign Policy
- 2207.341 Politics and Society in Russia and the C.I.S.
- 2207.345 Government and Politics of the Middle East
- 2207.346 Politics and Society of Great Britain
- 2207.351 Soviet Foreign Policy
- 2207.370 Special Topics in Political Science (according to topic)
- 2207.420 International Law
- 2207.421 International Organizations
- 2207.491 Independent Study (according to topic)

**C. Constitutional Law and the Legal Process:**

- 2207.312 Freedom of Expression
- 2105.335 Police Procedures & the Supreme Court (this course is cross-listed with the Law/Justice Studies Department)
- 2105.336 Trial Procedures & the Supreme Court (this course is cross-listed with the Law/Justice Studies Department)
- 2207.340 Civil Rights and Civil Liberties
- 2207.370 Special Topics in Political Science (according to topic)
- 2207.375 Politics of the Judicial Process
- 2207.410 Selected Problems in Constitutional Law
- 2207.415 In-Depth Study of the Current Supreme Court
- 2207.491 Independent Study (according to topic)

<b>IV. Free electives</b>	<b>21 s.h.</b>
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<b>V. Total Credits for Program</b>	<b>120 s.h.</b>
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## **Minor in Political Science**

**Bernadyne Weatherford, Advisor**

**Robinson Hall**

**856-256-4866**

**[weatherford@rowan.edu](mailto:weatherford@rowan.edu)**

The minor program in political science supplements the curriculum of students majoring outside 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 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 electives which students can tailor to their particular career or intellectual interests.

**I. Required Courses** **12 s.h.**

- 2207.100 Intro to Government and Politics  
*OR*  
 2207.110 American Government  
 2207.200 Survey of Western Political Theory  
 2207.230 Comparative Political Systems  
 2207.320 International Relations

**II. Recommended Electives** **9 s.h.**

*A. For pre-law students outside of political science, or for journalists, we suggest three courses from among the following:*

- 2207.310 American Constitutional Law  
 2207.312 Freedom of Expression  
 2207.340 Civil Rights and Civil Liberties  
 2207.375 Politics of the Judicial Process  
 2207.410 Selected Problems of Constitutional Law  
 2207.415 In-Depth Study of Supreme Court  
 2105.335 Police Procedures and Supreme Court  
 2105.336 Trial Procedures and Supreme Court

*B. For students seeking a career in politics, political journalism or social studies teaching, we suggest:*

- 2207.220 State and Local Government  
 2207.232 Current Problems in American Politics  
 2207.303 Campaigns, Political Parties and Interest Groups  
 2207.305 The Legislative Process  
 2207.306 The Presidency

*C. For students seeking a career in the diplomatic service, intelligence or international business, we suggest:*

- 2207.231 Contemporary World Problems  
 2207.240 Intro to Asian Politics  
 2207.330 Contemporary U.S. Foreign Policy  
 2207.341 Politics and Society in Russia and the C.I.S.  
 2207.351 Soviet Foreign Policy  
 2207.420 International Law

*D. For students seeking career opportunities in state, local, or federal government management, we suggest:*

- 2207.220 State and Local Government  
 2102.320 Public Administration  
 2102.410 Public Policy and Administration  
 2102.412 Administrative Law and the Regulatory Process  
 2102.490 Public Service Internship

# Psychology

**Keiko Stoeckig, Chair**  
**Robinson Hall**  
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**stoeckig@rowan.edu**

The Psychology program at Rowan University prepares students for graduate study in all areas of psychology. The program is also suited to those students who wish to combine psychological principles, concepts and practical skills with some area outside the field of psychology. This area may be a specific career area such as counseling, education, management, social work, labor relations, etc., or a general area such as human services.

The major program has a minimum of 38 hours of study in psychology. Of these, 12 hours are in foundational courses required of all majors, 17 hours are selected from a group of core courses (2 of these courses must be designated as psychology laboratory courses), 3 hours are selected from senior-level courses, and 6 hours are selected from psychology elective courses. Where choices are available, students are expected to consult their academic advisor.

Students wishing to major in psychology must have and maintain a 2.5 grade point average. In order to graduate with a degree in Psychology, students must be officially admitted to the major and must have a minimum cumulative grade point average of 2.5. Students currently enrolled at Rowan University who wish to major in psychology (internal transfer and undeclared majors) must have completed at least 12 credit hours at Rowan University and must complete the form for admission to a restricted major. Please be advised that, although a 2.5 grade point average is necessary to be considered as an internal transfer, it does not guarantee admission to the major. Students who do not maintain a 2.5 average will be expected to meet with their advisor to discuss the situation.

All Psychology majors (including coordinate psychology majors) are expected to meet with their psychology department advisor 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 course work. Transfer students must complete a minimum of 54 s.h. including a minimum of 26 s.h. of psychology course work at Rowan University to earn a psychology degree at Rowan University. The Psychology Department does not accept psychology transfer credits earned more than 25 years ago. All psychology majors are strongly urged to take all their psychology courses at Rowan. Students should consult with their advisor before taking courses at other institutions to make sure they will transfer to Rowan.

Psychology majors may take up to 10% of their Rowan credit hours pass/no credit, including 6 s.h. in psychology (students may not take Statistics and Research Methods, psychology laboratory core courses, nor their Senior Requirement course pass/no credit).

## B.A. in Psychology

**Keiko Stoeckig, Advisor**  
**Robinson Hall**  
**856-256-4870**  
**stoeckig@rowan.edu**

### I. General Education

**61-63 s.h.**

General education courses must be selected from the university-approved General Education course list (See p. 48 for all-university requirements.).

<i>Communications (written/spoken)</i>	<i>9-10 s.h.</i>
1501.111 College Composition I or	
1501.105 Integrated College Composition	
1501.112 College Composition II	
1506.202 Public Speaking	
<i>Science and Mathematics</i>	<i>10-11 s.h.</i>
1701.121 Pre-Calculus or	
1701.202 Intro to Geometry or	
1701.123 College Algebra	
(If the student is not prepared to take the above courses, Intermediate Algebra must be taken as an elective)	
0401.100 Biology I or	
0401.101 Biology II or	
0410.210 Anatomy & Physiology I or	
0401.113 General Biology: Human Focus	
(All students must take either Biology I or General Biology: Human Focus or Physical Anthropology)	
<i>Social and Behavioral Sciences</i>	<i>12 s.h.</i>
2202.201 Physical Anthropology or	
2202.202 Cultural Anthropology or	
2202.312 Anthropological Perspectives of Physical Growth	
<i>History, Humanities and Language</i>	<i>12 s.h.</i>
General Education Literature course	
1509.120 Intro to Philosophy or	
1509.368 Philosophy of Science or	
1509.226 Philosophy of Mind	
<i>Artistic and Creative Experience</i>	<i>3 s.h.</i>
<i>Non-program Electives</i>	<i>15 s.h.</i>
<b>II. Major Program</b>	<b>38 s.h.</b>
<i>A. Foundational Courses</i>	<i>12 s.h.</i>
2001.100 Intro to Psychology: Personal, Emotional, and Social Interactions	
2001.104 Intro to Psychology: Brain, Mind, and Behavior	
2007.210 Statistics & Research Meth. in Psychology	
<i>B. Core Courses</i>	<i>17 s.h.</i>
0822.320 Learning and Behaviorism	
<i>OR</i>	
2001.327 Cognitive Psychology	
2005.206 Social Psychology	
2010.315 Physiological Psychology	
<i>OR</i>	

**COLLEGE OF LIBERAL ARTS & SCIENCES**

- 2001.326 Perception  
2003.200 Abnormal Psychology  
*OR*  
2001.230 Psychology of Personality  
2009.209 Child Development  
*OR*  
2009.210 Adolescent Development

Students are required to take 2 of the above as laboratory courses which will emphasize the research methodology used in that particular discipline. Students must take one course from each of the five groups of courses.

**C. Senior Requirement** **3 s.h.**

- 2001.422 Field Experience in Psych  
*OR*  
2001.419 Independent Study  
*OR*  
2001.423 Seminar in Psych  
*OR*  
2001.429 Systems in Psychology

**D. Psychology Electives** **6 s.h.**

Any psychology courses may be taken.

**III. Free Electives** **21 s.h.**

**IV. Total Credits in Program** **120 s.h.**

**Minor in Psychology**

**Keiko Stoeckig, Advisor**  
**Robinson Hall**  
**856-256-4870**  
**stoeckig@rowan.edu**

The department offers a 21 s.h. minor in psychology. This 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 Academic Advising Coordinator. Minors may transfer a maximum of 6 s.h. in psychology from other institutions.

**Foundational Courses** **6 s.h.**

- 2001.100 Intro to Psychology: Personal, Emotional and Social Interactions  
2001.104 Intro to Psychology: Brain, Mind and Behavior

*Two 300/400 level psych courses* **6 s.h.**

*Electives (any psychology courses)* **9 s.h.**

## **State of New Jersey Certified Alcoholism & Drug Counselor (CADC)**

**Linda Jeffrey, Advisor**  
**Robinson Hall**  
**856-256-4874**  
**jeffrey@rowan.edu**

The psychology department, through the Liberal Arts and Sciences Institute, offers six courses (19 s.h.) that satisfy the coursework requirements for a State of New Jersey Certificate in Alcoholism and Drug Counseling (CADC). Students are also required to obtain 4000 hours of supervised alcoholism and/or drug counseling experience in an appropriate setting.

- 2005.125 Introduction to Psychological Study of Alcoholism/Drug Abuse
- 2005.215 The Psychology of the Adolescent Alcoholic/Drug Abuser
- 2005.217 Psychology of Gender and Alcoholism/Drug Abuse
- 2005.250 Psychopharmacology
- 2005.350 Psychological Treatment and Counseling of the Alcoholic/Drug Abuser
- 2005.425 Family Psychology and Alcoholism/Drug Abuse

## **Specialization in Behavioral Services for Children and Their Families**

**Mary Louise E. Kerwin, Advisor**  
**Robinson Hall**  
**856-256-4870**  
**kerwin@rowan.edu**

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 Associate Behavior Analyst. This specialization is available only to matriculated Psychology majors. The coursework for the specialization requires 4 semesters to complete. Students are encouraged to apply for the specialization by the end of their sophomore year.

- 2002.308 Research in Learning and Behaviorism
- 2002.305 Applied Behavior Analysis
- 2001.316 Behavioral Assessment and Measurement
- 2009.305 Developmental Psychopathology
- 2001.422 Field Experience

Students are encouraged to take the courses in the order in which they are listed.

## **Sociology**

**James R. Abbott, Chair**  
**Robinson Hall**  
**856-256-4885**  
**abbott@rowan.edu**

Students majoring in sociology receive a B.A. in sociology upon completion of all requirements. A major in sociology seeks to develop competence in the analysis and understanding of the effect which social factors have on interaction between individuals, between individual(s) and group(s), and between groups.

The program provides a knowledgeable background in the field of social behavior for all majors. The program also provides the proper foundation courses for students who seek to attend graduate school to become professional sociologists.

The department offers a Specialization in Applied Sociology. Sociological skills are now regarded as critical in 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. Accordingly, the Specialization in Applied Sociology introduces students to this ever-developing subfield within the discipline and provides them with the requisite foundation to pursue careers in the human and community services industries. The specialization is restricted to Sociology Majors and consists of a total of 39 semester hours. The core, which is required of all our majors, consists of the beginning (Introductory Sociology), middle (Classical Theory, Social Statistics and Sociological Research Methods) and culminating (Senior Seminar) experiences for our students. The required courses in the specialization include the field internship course where students gain direct experience in applying sociological skills to social problems. The elective banks, consisting of both lower and upper division courses, allow students to explore in greater depth their interests in particular areas of applied sociology. Students should consult with an advisor if interested in pursuing the Specialization in Applied Sociology.

The department also offers a minor in sociology as well as support courses for those majoring in other disciplines.

Admission to the sociology program is restricted to those students who have 1) completed at least one lower level sociology course with a grade of at least B-; 2) achieved at least a 2.5 overall grade point average (GPA); and 3) satisfactory completion of all Basic Skills courses and College Composition I. To graduate with a degree in sociology, students must have a minimum GPA of 2.5 and no grades lower than a C- in all required courses. Students must also have an overall GPA of 2.5. Of the 33 hours, 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 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 and others—may be substituted for Introduction to Sociology. All sociology students should consult their advisors and instructors prior to registering for their 300/400 level courses.

## **Specialization in Applied Sociology**

**Mary J. Gallant, Advisor**  
**Robinson Hall**  
**856-256-4500 ext. 3511**  
**gallant@rowan.edu**

## **Program Requirements**

### **I. General Education**

**43 s.h.**

#### *A. Communications 9 s.h.*

- 1501.111 College Composition I
- 1501.112 College Composition II
- 1506.202 Public Speaking

#### *B. Science and Mathematics*

*10 s.h.*

- Science with Laboratory
- 1702.100 Elementary Statistics
- Science, Math or Computer Science choice

**C. Social and Behavioral Sciences** 12 s.h.

- 2202.202 Cultural Anthropology  
 2001.100 Introduction to Psychology

**Economics Courses**

- 2204.101 Intro to Macroeconomics  
*OR*  
 2204.102 Intro to Microeconomics

**Political Science Courses**

- 2207.100 Intro to Government and Politics  
*OR*  
 2207.110 American Government  
*OR*  
 2207.230 Comparative Political Systems  
*OR*  
 2207.231 Contemporary World Problems

**Geography Courses**

- 2206.102 Cultural Geography  
*OR*  
 2206.111 World Regional Geography

**D. History, Humanities, Language** 9 s.h.

- History (Choice)  
 Literature (Choice)  
 Religion or Philosophy (Choice)

**E. Artistic and Creative Experience** 3 s.h.

- Arts Choice

**F. Non-Program Electives** 11 s.h.

- History, Humanities, Language Elective (Choice of 2)  
 CLAS Elective (Choice of 2)

**II. Specialization Requirements****39 s.h.**

- 2208.120 Introduction to Sociology  
 2208.221 Social Problems  
 2208.331 Classical Sociological Theory  
 2208.339 Sociological Practice  
 2208.375 Sociological Research Methods  
 2208.376 Social Statistics  
 2208.425 Senior Seminar  
 2208.494 Field Experience  
 Sociology Choice  
 Practice Bank Choice  
 Applied Bank Choice  
 Specialization Bank Choice

In addition to the above required courses, 12 hours of sociology must be chosen, in conjunction with the program advisor, from courses in sociology and courses cross-listed with sociology.

<b>III. Free Electives</b>	<b>27 s.h.</b>
Sociology majors are required to take at least 30 s.h. in upper-level courses with a minimum of 18 s.h. in sociology courses.	
<b>IV. Total Credits in Program</b>	<b>120 s.h.</b>

**B.A. in Sociology**

**Mary J. Gallant, Advisor**  
**Robinson Hall**  
**856-256-4500 ext. 3511**  
**gallant@rowan.edu**

<b>I. General Education</b>	<b>60 s.h.</b>
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<i>A. Communications</i>	<i>9 s.h.</i>
1501.111 College Composition I	
1501.112 College Composition II	
1506.202 Public Speaking	

<i>B. Science and Mathematics</i>	<i>10 s.h.</i>
Science with Laboratory	
1702.100 Elementary Statistics	
Science, Math or Computer Science choice	

<i>C. Social and Behavioral Sciences</i>	<i>12 s.h.</i>
2202.202 Cultural Anthropology	
2001.100 Introduction to Psychology	

**Economics Courses**

- 2204.101 Intro to Macroeconomics  
*OR*  
 2204.102 Intro to Microeconomics

**Political Science Courses**

- 2207.100 Intro to Government and Politics  
*OR*  
 2207.110 American Government  
*OR*  
 2207.230 Comparative Political Systems  
*OR*  
 2207.231 Contemporary World Problems  
 Geography Courses  
 2206.102 Cultural Geography  
*OR*  
 2206.111 World Regional Geography

<i>D. History, Humanities, Language</i>	<i>9 s.h.</i>
History (Choice)	
Literature (Choice)	
Religion or Philosophy (Choice)	

<i>E. Arts and Creative Experience</i>	<i>3 s.h.</i>
Arts Choice	
<i>F. Non-Program Electives</i>	<i>17 s.h.</i>
History, Humanities, Language Elective (Choice of 2)	
CLAS Elective (Choice of 4)	

<b>II. Major Requirements</b>	<b>33 s.h.</b>
2208.120 Introduction to Sociology	
2208.331 Classical Sociological Theory	
2208.375 Sociological Research Methods	
2208.376 Social Statistics	
2208.425 Senior Seminar	

In addition to the above required courses, 18 hours of sociology must be chosen, in conjunction with the program advisor, from courses in sociology and courses cross-listed with sociology.

<b>III. Free Electives</b>	<b>27 s.h.</b>
Sociology majors are required to take at least 30 s.h. in upper-level courses with a minimum of 18 s.h. in sociology courses.	

<b>IV. Total Credits in Program</b>	<b>120 s.h.</b>
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### **Minor in Sociology**

**Mary J. Gallant, Advisor**  
**Robinson Hall**  
**856-256-4500 ext. 3511**  
**gallant@rowan.edu**

Students who wish to minor in Sociology must complete a minimum of 21 hours in Sociology with a minimum of a 2.5 grade point average in the Sociology courses. Introduction to Sociology and Classical Sociological Theory are required. The remaining 15 s.h. in the minor are to be chosen in conjunction with the program advisor. Of the 21 s.h. required in sociology, 12 s.h. must be at the junior/senior level, and 12 s.h. must be taken at Rowan University.

- 2208.120 Introduction to Sociology (required)
- 2208.331 Classical Sociological Theory (required)
- Choices (15 s.h. with 9 s.h. in 300 or 400 level courses)

# COURSE DESCRIPTIONS

## **Numbering System**

The numbering system used for courses is the HEGIS Taxonomy for academic subdivisions of knowledge. The course titles and descriptions are arranged in numerical order without regard to departmental responsibility for teaching the courses. This system is scheduled to be replaced by an alphanumeric system in fall 2006. For information contact the Registrar or your advisor regarding the new course numbering system.

### **0313 American Studies**

#### **0400 Biological Sciences**

- 0401 Biology
- 0402 Botany
- 0404 Plant Morphology
- 0406 Plant Physiology
- 0407 Zoology
- 0410 Physiology, Human & Animal
- 0411 Microbiology
- 0414 Biochemistry
- 0418 Marine Biology
- 0420 Ecology
- 0421 Entomology
- 0422 Genetics
- 0427 Embryology

#### **0500 Business and Accounting**

- 0501 Business, General
- 0503 Accounting
- 0504 Finance
- 0506 Business Management
- 0507 Operations Research
- 0509 Marketing
- 0516 Labor/Employee Relations  
(MIS – see 0702, Legal Processes – see 1498)

#### **0600 Communication**

- 0601 Communication
- 0602 Journalism
- 0603 Radio/Television/Film
- 0604 Advertising
- 0605 Communication Studies
- 0606 Public Relations
- 0607 Legal Aspects
- 0699 Applied Communication

(Cinematography – see 1010, Linguistics – see 1505, Speech Communication – see 1506, Writing Arts – see 1507, English as a Second Language – see 1508)

## **0700 Computer and Information Sciences**

- 0701 Computer Science, General
- 0702 MIS - Management and Management Information Systems
- 0704 Computer Programming
- 0706 Hardware and Computer Organization
- 0707 Theory Methodology and Applications
- 0799 Computer Science, Other

## **0800 Education**

- 0801 Education, General
- 0802 Elementary Education
- 0803 Secondary Education, General
- 0806 Higher Education
- 0808 Special Education, General
- 0810 Education of Students with Cognitive Impairments
- 0817 Developmental Education
- 0818 Learning Disabilities
- 0819 Education of the Physically Handicapped
- 0821 Foundations
- 0822 Educational Psychology
- 0823 Early Childhood Education
- 0827 Educational Administration
- 0828 Leadership Studies
- 0830 Reading Education
- 0831 Art Education
- 0832 Music Education
- 0833 Mathematics Education
- 0834 Science Education
- 0835 Exercise Science
- 0837 Health Education
- 0838 Business Education
- 0839 Technology
- 0850 English/Language Arts Education
- 0851 Foreign Language Education
- 0852 Social Studies Education
- 0892 School Nursing

## **0900 Engineering**

- 0901 Engineering, General
- 0906 Chemical Engineering
- 0908 Civil Engineering
- 0909 Electrical and Computer Engineering
- 0910 Mechanical Engineering

**1000 Fine and Performing Arts**

- 1001 Fine Art, General
  - 1002 Art
  - 1003 Art History
  - 1004 Music, - Performing, Composition, Theory
  - 1006 Music History and Appreciation
  - 1007 Dramatic Arts
  - 1008 Dance
  - 1009 Applied Design
  - 1010 Cinematography
  - 1011 Photography
  - 1097 Music & Developmental Skills
- (Art Education – see 0831, Music Education – see 0832)

**1100 Foreign Languages and Literatures**

- 1102 French
- 1103 German
- 1104 Italian
- 1105 Spanish
- 1106 Russian
- 1107 Chinese
- 1109 Latin
- 1116 Zulu

**1203 Nursing**

**1305 Family Relations and Child Development**

**1306 Foods and Nutrition**

**1498 Legal Processes**

**1500 English Language and Literature**

- 1501 English, General
- 1502 Literature
- 1505 Linguistics
- 1506 Speech Communication
- 1507 Writing Arts
- 1508 English as a Second Language
- 1509 Philosophy
- 1510 Religion

**1700 Mathematics**

- 1701 Developmental Mathematics
- 1701 Mathematics, General
- 1702 Statistics
- 1703 Applied Mathematics

## **1801 Military Science (R.O.T.C.)**

### **1900 Physical Sciences**

- 1901 Physical Sciences, General
- 1902 Physics
- 1905 Chemistry, General
- 1906 Inorganic Chemistry
- 1907 Organic Chemistry
- 1908 Physical Chemistry
- 1909 Analytical Chemistry
- 1911 Astronomy
- 1913 Atmospheric Sciences and Meteorology
- 1914 Geology
- 1917 Earth Sciences
- 1919 Oceanography

### **2000 Psychology**

- 2001 Psychology, General
- 2002 Experimental Psychology
- 2003 Clinical Psychology
- 2005 Social Psychology
- 2006 Psychometrics
- 2007 Statistics in Psychology
- 2008 Industrial/Organizational Psychology
- 2009 Developmental Psychology
- 2010 Physiological Psychology

### **2100 Public Affairs and Services**

- 2102 Public Administration
- 2105 Law and Justice Studies

### **2200 Social Sciences**

- 2202 Anthropology
- 2204 Economics
- 2205 History
- 2206 Geography
- 2207 Political Science and Government
- 2208 Sociology
- 2209 Criminology
- 2215 Demography

### **4900 Interdisciplinary Studies**

- 4901 Liberal Arts and Sciences-General
- 4902 Math and Science
- 4905 Honors - Honors Studies Concentration
- 4994 Environmental Studies
- 4999 Social and Community Services

**0313 American Studies****0313.201 Introduction to American Studies****3 s.h.**

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.

**0313.400 Independent Study in American Studies****3 s.h.**

Students will engage in an independent study project under the supervision of a faculty member. Topics will vary.

**0313.402 Senior Seminar in American Studies - WI****3 s.h.**

*Prerequisite: 1501.112, 0313.201, senior standing*

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.

**0401 Biology****0401.100 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.

**0401.101 Biology II****4 s.h.**

*Prerequisite: 0401.100*

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.

**0401.105 Essentials of Biology****4 s.h.**

*Prerequisite: 1905.102 or equivalent*

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.

**0401.110 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.

**0401.112 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.

**0401.113 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.

**0401.115 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.

**0401.201 Pharmacognosy****4 s.h.**

*Prerequisite: 0401.100, 0401.101*

This is a lecture/demonstration course which studies the science that embraces the history, source, cultivation, collection, preparation, distribution, commerce, identification, composition, purity and preservation of drugs of plant origin.

**0401.210 Biological Systems and Applications****4 s.h.**

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.

**0401.300 Phycology****4 s.h.**

*Prerequisite: 0401.100, 0401.101*

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.

**0401.310 Evolution****4 s.h.**

*Prerequisite: 0401.100, 0401.101 or permission of instructor*

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.

**0401.320 Introduction to Virology****4 s.h.**

*Prerequisite: 0401.100, 0401.101, and one of the following: 0401.330 or 0422.335 or 0401.430*

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.

**0401.321 Introduction to Virology - WI****4 s.h.**

*Prerequisite: 1501.111, 1501.112, 0401.100, 0401.101, one of the following: 0411.330 or 0422.335 or 0401.430*

This laboratory course explores the 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.

**0401.325 Introduction to Mycology****4 s.h.**

*Prerequisite: 0401.100, 0401.101*

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.

## COURSE DESCRIPTIONS

### **0401.352 Ornithology** 4 s.h.

*Prerequisite: 0401.100, 0401.101*

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.

### **0401.356 Parasitology** 4 s.h.

*Prerequisite: 0401.100, 0401.101*

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.

### **0401.405 Conservation Biology** 4 s.h.

*Prerequisite: 0401.100, 0401.101, 0420.310, 0422.335 or permission of instructor*

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 (1) to introduce students to local, regional and global conservation issues and (2) to emphasize synthesis and creativity in addressing conservation problems.

### **0401.407 Methods in Macroevolution** 4 s.h.

*Prerequisite: 0401.100, 0401.101*

This laboratory course investigates how we investigate and interpret patterns of macroevolution (evolution above the species level). The course will cover a variety of topics, including systematics, species concepts, evolutionary mechanisms, and phylogenetic analysis. Laboratory exercises include the demonstrations and actual applications of investigative techniques used to study macroevolutionary patterns. This course may not be offered annually.

### **0401.420 General Taxonomy** 4 s.h.

*Prerequisite: 0401.100, 0401.101*

This course considers the principles of classification and naming of organisms, and other concepts basic to taxonomy. Laboratory and field work provide experience with the use and construction of keys and identification of plants and/or animals. This course may not be offered annually.

### **0401.428 Developmental Biology** 4.0 s.h.

*Prerequisite: 0401.100, 0401.101, one of the following: 0422.335, 0414.348, 0414.440, 0427.401, 0401.430 or permission of instructor*

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.

### **0401.430 Cell Biology** 4 s.h.

*Prerequisite: 0401.100, 0401.101*

This laboratory course deals with the structure and function of cellular parts including, but not limited to, membranes, mitochondria, Golgi bodies, plastids and the nucleus.

### **0401.435 Cell Culture Technology** 4 s.h.

*Prerequisite: 0401.100, 0401.101, Senior standing or Permission of the instructor*

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.

**0401.440 Special Topics in Biological Sciences****2 s.h.***Prerequisite: 0401.100, 0401.101, Senior or Junior standing. This course is not open to non-majors*

This seminar course covers special topics in individual areas of the biological sciences. Students give oral reports on topics chosen from the current biological sciences literature. Students may be required to submit written reports as well. This course is required for all Biology majors.

**0401.445 Special Topics in Biological Sciences - WI****3 s.h.***Prerequisite: 0401.100, 0401.101, 1501.111, 1501.112, permission of instructor*

This seminar course covers special topics in individual areas of the biological sciences. Students give oral reports on topics chosen from the current biological sciences literature. Students may be required to submit written reports as well. This course is required for all Biology Majors.

**0401.450 Independent Study in Biological Sciences****1-3 s.h.***Prerequisite: 16 s.h. in Biological Sciences, permission of instructor*

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.

**0401.454 Herpetology****4 s.h.***Prerequisite: 0401.100, 0401.101*

Students make an intensive study of the behavior, ecology, evolution and physiology of amphibians and reptiles. Laboratories stress identification, gross anatomy and techniques.

**0401.458 Mammalogy****4 s.h.***Prerequisite: 0401.100, 0401.101*

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.

**0401.460 Animal Ethology****4 s.h.***Prerequisite: 0401.100, 0401.101*

An in-depth study of animal behavior under natural conditions, this course deals with the major theories of innate behavior.

**0401.465 Animal Histology****4 s.h.***Prerequisite: 0401.100, 0401.101*

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.

**0401.470 Ichthyology****4 s.h.***Prerequisite: 0401.100, 0401.101, senior-class standing or permission of the instructor*

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.

## COURSE DESCRIPTIONS

### **0401.475 Biology Lab/Field Research** **3 s.h.**

*Prerequisite: Faculty approval*

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.

### **0402 Botany**

#### **0402.200 Introductory Botany** **4 s.h.**

*Prerequisite: 0401.100, 0401.101 or the equivalent*

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.

#### **0402.201 Plant Diversity** **4 s.h.**

*Prerequisite: 0401.100, 0401.101 or the equivalent, and 0402.200 or permission of the instructor*

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. Instructor's permission to enroll is required for students who have not completed Introductory Botany (0402.200).

#### **0402.350 Flora of New Jersey** **4 s.h.**

*Prerequisite: 0401.100, 0401.101 or the equivalent or permission of the instructor*

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.

#### **0402.405 Plant Physiology** **3 s.h.**

*Prerequisite: Senior standing, 0402.200, 0402.201, 1907.200 or permission of instructor*

This course will cover the principles and factors concerned with development of plants, including nutrition, water relationships, photosynthesis, chemosynthesis, reproduction, and growth.

#### **0402.410 Stream Ecology** **4 s.h.**

*Prerequisite: 0401.100, 0401.101*

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.

### **0407 Zoology**

#### **0407.200 Invertebrate Zoology** **4 s.h.**

*Prerequisite: 0401.100, 0401.101*

This laboratory course deals with the anatomy and physiology of invertebrate animals, the value and significance of non-chordate animals and an understanding of their life processes.

#### **0407.301 Comparative Vertebrate Anatomy** **4 s.h.**

*Prerequisite: 0401.100, 0401.101*

This laboratory course provides an intensive comparative study of the gross and microscopic anatomy of vertebrate animals, including dissection of representative chordates.

**0410 Physiology, Human & Animal****0410.210 Human Anatomy and Physiology I****4 s.h.**

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.

**0410.212 Human Anatomy and Physiology II****4 s.h.**

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.

**0410.345 Human Physiology****4 s.h.**

*Prerequisite: 0401.100, 0401.101, 1907.200*

This course surveys the basic physiology of the human organism, emphasizing the nervous and circulatory systems.

**0410.350 Work Physiology****3 s.h.**

*Prerequisite: 0401.100, 0401.101*

This course studies the effect of short term and long term work stress on the human organism. This course may not be offered annually.

**0411 Microbiology****0411.330 Microbiology****4 s.h.**

*Prerequisite: 0401.100, 0401.101*

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.

**0411.338 Immunology****4 s.h.**

*Prerequisite: 0401.100, 0401.101*

This course studies infection and resistance and the principles and types of immunity and hypersensitivity. Laboratory applications include: antigen-antibody formation, structure and reactivities.

**0411.405 Environmental Microbiology****4 s.h.**

*Prerequisite: 0401.100, 0401.101, junior or senior class standing*

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.

**0414 Biochemistry****0414.440 Introduction to Biochemistry - Lecture Only****3 s.h.**

*Prerequisite: 0401.100, 0401.101, 1907.201*

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.

**0418 Marine Biology****4 s.h.****0418.360 Marine Biology***Prerequisite: 0401.100, 0401.101*

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.

**0418.400 Limnology****4 s.h.***Prerequisite: 0401.100, 0401.101*

This course provides a laboratory study of standard procedures whereby the physical, chemical, geological and biological aspects of aquatic environments are synthesized in order to develop understanding of fresh water habitats.

**0420 Ecology****3 s.h.****0420.100 Introduction to Natural Resources**

This introductory course considers natural resources and their relationship to man and society. For science and non-science majors.

**0420.150 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.

**0420.310 Ecology****4 s.h.***Prerequisite: 0401.100, 0401.101*

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.

**0420.311 Ecology (WI)****4 s.h.***Prerequisite: 0401.100, 0401.101, 1501.111, 1501.112*

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. This course offered as writing intensive.

**0420.321 Physiological Ecology****4 s.h.***Prerequisite: 0401.100, 0401.101*

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.

**0420.330 Environmental Science****4 s.h.***Prerequisite: 0401.100, 0401.101, 1906.100 or permission of the instructor*

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.

**0420.401 Principles of Ecology****4 s.h.***Prerequisite: 0401.100 or 0401.105, 1905.102, 1702.260, 4901.315*

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.

**0420.425 Environmental Toxicology****4 s.h.**

*Prerequisite: 0401.100, 0410.101, 1906.100, 1906.101, 1907.200, 0420.310, Junior or Senior class standing*  
 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.

**0420.474 Tidal Marsh Ecology****4 s.h.**

*Prerequisite: 0401.100, 0401.101*

This course studies salt marsh development and physiography, community structure, energetics and inter-relationships.

**0421 Entomology****0421.401 Entomology****4 s.h.**

*Prerequisite: 0401.100, 0401.101*

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.

**0422 Genetics****0422.335 Genetics****4 s.h.**

*Prerequisite: 0401.100, 0401.101*

This laboratory course covers Mendelian genetics, linkage, chromosome mapping, chromosomal and point mutation, multiple alleles, biochemical and population genetics.

**0422.410 Concepts in Human Genetics****4 s.h.**

*Prerequisite: Senior class standing, 0422.335 or permission of instructor*

Patterns of transmission of single gene traits, human biochemical genetics, autosomal and sex-linked chromosomal anomalies, immunogenetics and blood groups, screening for genetic diseases and prenatal diagnosis will be discussed during this course. The reading material for this course will be primarily from the original scientific literature. Includes lecture and laboratory sessions.

**0422.450 Molecular Genetics****4 s.h.**

*Prerequisite: 0401.100, 0401.101 and any one of the following, 0422.335, 0414.400 or 0414.348 or permission of instructor*

This course considers the principal concepts in biochemical genetics which indicate the high degree of chemical diversity present in living organisms.

**0427 Embryology****0427.401 Embryology of Animals****3 s.h.**

*Prerequisite: 0401.100, 0401.101, senior class standing*

This laboratory class focuses on the morphologic and physiologic processes involved in the development of embryos from fertilization and the 1-cell stage to the newborn/newly-hatched. The course includes the development of invertebrates, amphibians, birds, and mammals.

**0427.403 Comparative Embryology****4 s.h.**

*Prerequisite: 0401.100, 0401.101, and Senior class standing*

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.

**0501 Business, General****0501.105 Business Perspectives****3 s.h.***Prerequisite: Business/Accounting majors only*

Students will explore the impact of acceleration of change and environment complexity on contemporary business organization. This course will focus on evolving (1) ethical issues, (2) the management of technology, and (3) impact of demographic diversity on organizations.

**0503 Accounting****0503.210 Principles of Accounting I****3 s.h.***Prerequisite: Sophomore Standing*

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.

**0503.211 Principles of Accounting II****3 s.h.***Prerequisite: 0503.210*

This course includes accounting theory and practice applied to corporations and public agencies; budgeting and estimating; analysis and comparison of cost and financial data.

**0503.300 Supervised Internship in Accounting****3 s.h.***Prerequisite: Junior standing as an Accounting major, 0503.310*

This course includes accounting field experience in government, industry or non-profit organizations. Trainees are given assignments that prepare them for productive employment upon graduation. The learning process is monitored by an Accounting faculty member.

**0503.310 Intermediate Accounting I - Fall semester only****3 s.h.***Prerequisite: 0503.211, Junior standing as a Business or Accounting major*

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 Changes in Financial Position, and the specific principles related to the accounting for current assets, with particular emphasis on inventory. A special section is devoted to the time value of money as related to accounting.

**0503.311 Intermediate Accounting II - Spring semester only****3 s.h.***Prerequisite: 0503.310, Junior standing as a Business or Accounting major*

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.

**0503.316 Concepts in Federal Taxation****3 s.h.***Prerequisite: Junior standing as a Business or Accounting major, 0503.310*

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.

**0503.320 Accounting Information Systems****3 s.h.***Prerequisite: 0502.310 or 0503.310, 0701.200, Junior Standing as a Business or Accounting Major*

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.

**0503.326 Cost Accounting - Fall semester only****3 s.h.***Prerequisite: 0502.211 or 0503.211, Junior Standing as a Business or Accounting major*

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; master and flexible budgets; cost-volume-profit analysis; and transfer pricing.

**0503.328 Entrepreneurial Accounting****3.0 s.h.***Prerequisite: 0503.211 or 0503.405 or permission of instructor*

This course provides students with the accounting and financial tools essential for effective decision-making in starting and managing small to mid-sized businesses. It focuses on the measurement and evaluation of financial performance, effective cash management techniques, internal control concepts, good decision-making for growth and long-term solvency of the business. A hands on, project based learning experience is emphasized to integrate the various financial tools and to assist student in applying what they learn.

**0503.405 Foundations of Accounting - Fall semester only****3 s.h.***Prerequisite: permission from MBA Director*

This course presents an overview of accounting as an information system useful for decision making. It provides students with an understanding of the basic concepts of financial and managerial accounting from the perspective of a future user of accounting information.

**0503.410 Auditing - Spring semester only****3 s.h.***Prerequisite: 0503.311, 1702.260, Senior standing as a Business or Accounting major*

This course studies the framework of an audit which includes the ethical and legal environment, working papers, internal accounting control of a manual and EDP system, audit reports and the use of statistics and the computer in the auditing process. The course also emphasizes the application of auditing principles and procedures through the use of practice sets.

**0503.416 Advanced Accounting****3 s.h.***Prerequisite: 0503.311 or 0502.311, Senior standing as a Business or Accounting major*

This course covers concepts and accounting for business combinations, governmental entities, and non-governmental not-for-profit organizations. It also covers the accounting for inter-company transfers, segment reporting, and interim reporting. It provides an overall review of generally accepted accounting principles in producing consolidated financial statements for the business and non-business organization.

**0503.428 Integrative Accounting Seminar****3 s.h.***Prerequisite: 0503.311 or 0502.311, Senior standing as a Business or Accounting major*

This course provides an integrative experience in which students synthesize knowledge from the accounting content areas to interpret, evaluate, and analyze financial information in order to enhance planning and decision-making. The course uses case analyses to involve students in active rather than passive learning, and places emphasis on skills in analytical and critical thinking, technology, communication and teamwork. Students are strongly advised to take Concepts of Taxation (0503.316) prior to enrolling in this course. (Offered Spring Only)

**0503.430 Individual Taxation****3 s.h.***Prerequisite: 0503.311, Senior Standing as a Business or Accounting major*

Surveys the tax structure of the United States, emphasizing the Internal Revenue code and regulations that affect federal income tax liabilities of individuals. Basic tax research and preparation skills are a consistent theme throughout the course.

**0503.431 Taxation of Business Entities****3 s.h.***Prerequisite: 0503.430, Senior Standing as a Business or Accounting major*

An introductory course in the Federal Income Taxation of business transactions relating to corporations, partnerships, LLCs and estates and trusts. Students will explore tax policy issues, apply basic tax research to specific case problems, prepare common IRS forms and schedules, and develop skills necessary for effective tax planning and its impact on business decisions.

**0504 Finance****0504.300 Principles of Finance 3 s.h.**

*Prerequisite: 1703.125, 1702.260, 0503.210, 0503.211, 2204.101, 2204.102, Junior standing as a Business or Accounting major*

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.

**0504.327 Selected Topics in Finance 3 s.h.**

*Prerequisite: 0504.300*

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.

**0504.422 Financial Management I - Fall semester only 3 s.h.**

*Prerequisite: 0504.300, Senior standing as a Business or Accounting 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.

**0504.423 Financial Management II - Spring semester only 3 s.h.**

*Prerequisite: 0504.422, Senior standing as a Business or Accounting major*

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.

**0504.424 Seminar in Finance - Spring semester only 3 s.h.**

*Prerequisite: 0504.300, 1702.261, Senior standing as a Business major*

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.

**0504.425 Risk Management - Spring semester only 3 s.h.**

*Prerequisite: 0504.300, 1702.261, Senior standing as a Business or Accounting major*

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, forwards, swaps, and other hybrid securities and how these securities are used to hedge the risk in a firm or a specific financial transaction.

**0504.430 Supervised Internship in Finance - Spring and Summer semesters only 3 s.h.**

*Prerequisite: Senior standing as a Business major, 0504.300*

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.

**0504.431 Investment/Portfolio Analysis - Fall semester only** **3 s.h.***Prerequisite: 1702.261, 0504.300, Senior standing as a Business or Accounting major*

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.

**0504.433 Financial Institutions and Markets** **3 s.h.***Prerequisite: 0504.300, completion of at least 90 s.h. as a Business or Accounting major*

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.

**0504.435 International Financial Management - Spring semester only** **3 s.h.***Prerequisite: 0504.300, Senior standing as a Business or Accounting major*

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.

## **0506 Business Management**

**0506.101 Introduction to Management (Non-business majors only)** **3 s.h.**

This course studies the basic concepts of management: planning, organizing, directing, and controlling, as well as communication and decision making. It includes an introductory analysis of human resources and requirements. It emphasizes the decision-making and leadership roles of the manager.

**0506.300 Organizational Behavior** **3 s.h.***Prerequisite: Junior standing as a Business or Accounting 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.

**0506.302 Management of Human Resources** **3 s.h.***Prerequisite: Junior standing as a Business or Accounting major*

This course examines the human resource management system: staffing and organization, recruitment, employee development, motivation, performance evaluation, management-labor relations, remuneration and security.

**0506.304 Organizational Change and Development** **3 s.h.***Prerequisite: 0506.300 or 0506.309, Junior standing as a Business or Accounting major*

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.

**0506.305 Operations Management** **3 s.h.***Prerequisite: 1702.260, 1703.125 or 1701.130, Junior standing as a Business or Accounting major*

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.

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<b>0506.309 Organizational Behavior (WI)</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.112, Junior standing as a Business or Accounting major</i>	
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.	
<b>0506.310 Leadership and Supervision for Managers</b>	<b>3 s.h.</b>
<i>Prerequisite: 57 credit hours, admitted to the Management Specialization or Permission of the Instructor, 1506.202</i>	
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.	
<b>0506.311 Decision-Making Tools for Managers</b>	<b>3 s.h.</b>
<i>Prerequisite: 57 credit hours, 0506.305, admitted to the Management Specialization or Permission of the Instructor</i>	
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.	
<b>0506.312 Selected Topics in Management I</b>	<b>3 s.h.</b>
<i>Prerequisite: admitted to the Management Specialization, 57 credit hours</i>	
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.	
<b>0506.313 Selected Topics in Management II</b>	<b>3 s.h.</b>
<i>Prerequisite: 57 credit hours, admitted to the Management Specialization</i>	
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.	
<b>0506.315 Recruitment and Selection</b>	<b>3 s.h.</b>
<i>Prerequisite: 0506.302, Junior standing as a Business or Accounting major, completion of 57 hours</i>	
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 of the recruitment and selection functions as well as the practical application of these activities are presented.	

**0506.318 Human Resources Information Systems** **3 s.h.***Prerequisite: 0701.100, 0506.302, Junior standing as a Business or Accounting major*

This course will provide students with a working knowledge of the structure, use, and evaluation of human resource information systems

**0506.319 Special Topics in Human Resource Management** **3 s.h.***Prerequisite: 0506.302, Junior standing as a Business or Accounting major*

This course presents human resource management topics related to recent development in HRM practice and research.

**0506.326 Entrepreneurship and Small Business Management** **3 s.h.***Prerequisite: Junior standing as a Business or Accounting major*

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.

**0506.327 Strategic Issues in Family Business** **3 s.h.***Prerequisite: Junior Standing (57 semester hours completed)*

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.

**0506.328 Evaluating Franchising Opportunities** **3 s.h.***Prerequisite: Junior Standing (57 semester hours completed)*

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.

**0506.330 Managing International Business** **3 s.h.***Prerequisite: 2204.101, 2204.102, 0506.300 or 0506.309, Junior standing as a Business or Accounting major*

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.

**0506.340 Entrepreneurship and Innovation** **3 s.h.***Prerequisite: Junior Standing (57 semester hours completed)*

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.

**0506.342 Financing and Legal Aspects of Entrepreneurship** **3 s.h.***Prerequisite: Junior Standing (57 semester hours completed)*

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

## COURSE DESCRIPTIONS

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.

### **0506.344 Entrepreneurial Growth Strategies**

**3 s.h.**

*Prerequisite: Junior Standing (57 semester hours completed)*

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.

### **0506.354 Managerial Data Analysis**

**3 s.h.**

*Prerequisite: 1702.260, admitted to the Business or Accounting programs, 1703.125 or 1707.130, 57 credit hours*

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.

### **0506.361 Supervised Internship**

**3 or 6 s.h.**

*Prerequisite: Junior Standing as a Business major, 0506.300 or 0506.309*

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.

### **0506.375 Managing Services**

**3 s.h.**

*Prerequisite: 0506.300 or 0506.309, 0506.304, Junior standing as a Business or Accounting major*

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.

### **0506.402 Business Policy**

**3 s.h.**

*Prerequisite: 0702.334 or 0503.420, 0501.105, 1498.242, 0509.200, 0506.309, 0504.300, 0506.305, Senior standing of a Business or Accounting Major*

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.

### **0506.404 Quality Management**

**3 s.h.**

*Prerequisite: 0506.305, Senior standing as a Business or Accounting major*

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.

**0506.405 Business Management Simulation****3 s.h.**

*Prerequisite: 0504.300 or 0506.309, 0506.305, 0509.200, Senior standing as a Business or Accounting Major*  
 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.

**0506.415 Management Consulting Field Study****3 s.h.**

*Prerequisite: 0506.326, Senior standing as a Business or Accounting major*

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.

**0506.420 Principles of Training and Training Management****3 s.h.**

*Prerequisite: 0506.300 or 0506.309 or 0506.302, Senior standing as a Business or Accounting Major*

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.

**0506.425 Management of Compensation****3 s.h.**

*Prerequisite: 0506.302, Senior standing as a Business or Accounting Major*

This advanced course in human resource management covers methods of job analysis and job evaluation, the determination of wages and salaries, the administration of pay programs, legislation affecting compensation, and current controversies and policy issues in the field.

**0506.426 New Venture Development****3 s.h.**

*Prerequisite: 0506.326*

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.

**0506.430 Business Field Research Experience****3 s.h.**

*Prerequisite: 0506.305, Senior standing as a Business or Accounting Major*

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.

**0506.450 Technology Entrepreneurship****3 s.h.**

*Prerequisite: Senior Standing*

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.

**0507 Operations Research****0507.430 Principles of Management Science****3 s.h.***Prerequisite: 0701.200, 1702.260, 1703.125*

This course introduces students to various topics in operations research. Topics will be chosen from the following list: linear programming and transportation problems, decision theory, PERT, linear regression analysis, queuing theory, forecasting and inventory models.

**0509 Marketing****0509.200 Principles of Marketing****3 s.h.***Prerequisite: 1501.111, completion of 12 credits*

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.

**0509.290 Marketing Basics****3 s.h.**

An introduction to marketing, designed for non-business majors only. Students examine key concepts in marketing, such as product and service development, promotion, pricing and distribution.

**0509.305 Internet Marketing****3 s.h.***Prerequisite: Junior standing as a Business or Accounting major, 0509.200*

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.

**0509.315 Personal Selling****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

**0509.330 Marketing Channels****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

**0509.350 Management of Advertising and Promotion****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

**0509.360 Services Marketing****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

**0509.372 Retailing****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

**0509.375 Business Logistics****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

This course focuses on the logistics of physical distribution. Topics include traffic routing, inventory analysis and control, warehousing, and location of production and storage facilities.

**0509.376 Consumer Behavior****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

**0509.378 Product, Price, New Venture Management****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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. Actual class participation in the concept and development of a specific product selected by the class supplements theory.

**0509.379 International Marketing****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

**0509.382 Sales Force Management****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

**0509.384 Research Methods in Marketing-WI****3 s.h.***Prerequisite: 0509.200, 1702.260, Junior standing as a Business or Accounting major*

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.

**0509.390 Selected Topics in Marketing****3 s.h.***Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

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### **0509.391 Business to Business Marketing** 3 s.h.

*Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

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.

### **0509.403 Strategic Marketing Management** 3 s.h.

*Prerequisite: 0509.376, Business or Accounting major, completion of 87 credits*

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.

### **0509.405 Management Communications and Public Relations** 3 s.h.

*Prerequisite: 0509.200, Junior standing as a Business or Accounting major*

This course focuses on effective forms of communication within a corporate setting. Students learn how to write business letters, memoranda and reports, as well as how to give a business presentation. The course also surveys the role of public relations in business. This course may not be offered annually.

### **0509.411 Supervised Internship in Marketing.** 3 s.h.

*Prerequisite: 0509.200, 72 credits, Business Admin or Accounting major, 9 300 level Marketing credits, permission of instructor*

This course is intended to provide students with actual business experience. Fieldwork is combined with lectures and discussion sessions in the classroom. Registration in the course and prior approval from the instructor are required.

## **0516 Labor/Employee Relations**

### **0516.401 Labor/Employee Relations** 3 s.h.

*Prerequisite: 0506.302*

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.

## **0601 Communication Studies**

### **0601.203 Mass Media and Their Influences** 3 s.h.

*Prerequisite: 1501.112 or permission of instructor*

This course studies the impact on our daily lives of television, radio, films, magazines and newspapers. Students examine how the media influence politics, purchases, entertainment, and how they 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.

### **0601.205 Mass Media and Their Influences-WI** 3 s.h.

*Prerequisite: 1501.112 or permission of instructor*

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, entertainment, and how they 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.

### **0601.207 Fiction to Film** 3 s.h.

*Prerequisite: 30 s.h.*

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.

**0601.220 Introduction to Communication Studies****3 s.h.**

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.

**0601.221 Organization Communication Theory and Research****3 s.h.**

*Prerequisite: 1501.112*

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.

**0601.222 Rhetorical Theory****3 s.h.**

*Prerequisite: 1501.112*

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.

**0601.300 Communication Theory****3 s.h.**

*Prerequisite: 1501.112 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.

**0601.319 Intercultural Communication****3 s.h.**

*Prerequisite: 1501.112*

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 vary perspectives of communication studies scholars with regards to this phenomenon.

**0601.320 Ethical Issues in Human Communication****3 s.h.**

*Prerequisite: 60 credit hours taken, Matriculation in College of Communication*

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.

**0601.321 Health Communication****3 s.h.**

*Prerequisite: 1501.112, 60 credit hours, Matriculation in College of Communication*

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.

**0601.322 Family Communications****3 s.h.**

*Prerequisite: 1506.202*

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.

**0601.323 Images of Gender in Popular Culture** **3 s.h.***Prerequisite: 1501.122*

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.

**0601.350 Research Practicum in Communication Studies** **1-3 s.h.***Prerequisite: Completion of 75 credit hours, 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. In order to receive approval for this course, students must have a minimum 2.5 grade point average.

**0601.402 Selected 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.

**0601.405 Independent Study (Communication Studies)** **1, 2, or 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.

**0601.406 Seminar in Communication Studies-WI** **3 s.h.***Prerequisite: Senior standing in Communication Studies specialization or permission of instructor*

This course provides a seminar experience in areas of communication that are not part of the regular course offerings. Recent topics have included Rhetorical Theory, Nazi Propaganda, and Presidential Election Campaigns.

**0601 Communication, Writing Arts****0601.100 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.

**0601.101 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.

**0601.304 Writing with Style****3 s.h.***Prerequisite: 45 hrs, 1501.111, 1501.112*

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.

**0601.400 Writing for the Workplace****3 s.h.***Prerequisite: 75 hours, 1501.111, 1501.112*

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.

**0602 Journalism****0602.210 Journalistic Writing****3 s.h.***Prerequisite: 1501.112*

This course introduces students to a wide variety of news writing forms. The course covers material ranging from news writing to features, editorials, and sports copy. The course also introduces students to page make-up, headline writing and copy editing. This course is open to non-majors and may not be offered annually.

**0602.305 Electronic Journalism II: Television****3 s.h.***Prerequisite: 0603.220 or 0602.310 or 0602.222 or permission of instructor*

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 World Wide Web. Students learn the duties and responsibilities of all television newscast personnel, including anchors, executive producers, writers, directors, camera operators, audio operators, graphic artists, and editors. During the semester, students rotate through various duties, including writing, anchor and reporter positions.

**0602.310 News Reporting I****3 s.h.***Prerequisite: 1501.112*

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.

**0602.311 News Reporting II****3 s.h.***Prerequisite: 0602.310*

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.

**0602.312 Special Journalistic Writing****3 s.h.***Prerequisite: 0602.310*

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.

**0602.313 Magazine Article Writing****3 s.h.***Prerequisite: 45 hours or Permission of Instructor*

Students get started as free-lance 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 free-lance markets. Students submit work for publication.

## COURSE DESCRIPTIONS

<b>0602.314 Photojournalism</b>	<b>3 s.h.</b>
<i>Prerequisite: 45 hours</i>	
This course covers the practices and techniques used by photojournalists on modern American newspapers. Students take, develop and edit photographs on a weekly basis. Weekly laboratory assignments are required. (This course may not be offered annually.)	
<b>0602.317 Publication Layout and Design</b>	<b>3 s.h.</b>
<i>Prerequisite: 45 hours</i>	
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.	
<b>0602.318 Journalistic Sources of Information</b>	<b>3 s.h.</b>
<i>Prerequisite: 45 hours</i>	
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 non-profit records.	
<b>0602.319 Media Ethics</b>	<b>3 s.h.</b>
<i>Prerequisite: 0601.203</i>	
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.	
<b>0602.320 Electronic Journalism I: Radio</b>	<b>3 s.h.</b>
<i>Prerequisite: 0603.220, 30 hours, Permission of Instructor or Advanced Standing</i>	
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.	
<b>0602.321 Online News Writing</b>	<b>3 s.h.</b>
<i>Prerequisite: 0602.310</i>	
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.	
<b>0602.325 Web Production and Editing for Mass Media</b>	<b>3 s.h.</b>
<i>Prerequisite: A passing grade on the Computer Competency Exam or successful completion of 0701.100</i>	
Students in Web Production and Editing for Mass Media 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.	
<b>0602.341 Broadcast News Writing</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.112</i>	
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 radio and television, learning how to write for the ear, integrate audio, video, and integrate stories into a newscast.	

**0602.355 Journalism Practicum****1-3 s.h.**

*Prerequisite: Completion of 75 credit hours, minimum 2.5 grade point average, approval of Journalism department advisor*

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.

**0602.356 Journalism Field Experience****1-3 s.h.**

*Prerequisite: Completion of 75 credit hours, approval of journalism department advisor*

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. Student must have at least a 2.5 GPA to take Journalism Field Experience.

**0602.410 Problems in Contemporary Journalism****3 s.h.**

*Prerequisite: 0602.311*

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.

**0602.411 Copyediting and Make-up****3 s.h.**

*Prerequisite: 0602.310, 0602.311*

Students learn modern copyediting skills. They use computers to edit copy and write captions and headlines. They also learn how to crop photos and design newspaper pages. Students interview copy editors to learn more about the job. They take weekly style and spelling quizzes to sharpen their editing skills.

**0602.420 Newspaper Laboratory****3 s.h.**

*Prerequisite: 0602.310 or Permission of Instructor*

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.

**0602.425 Advanced Publication Layout****3 s.h.**

*Prerequisite: 0602.317*

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.

**0603 Radio/Television/Film****0603.205 TV History and Appreciation 3 s.h.**

TV History and Appreciation explores 50 years of the art and impact of one of the most persuasive mediums ever invented. Through viewing a wide array of clips and full episodes of programming from the '40s through the '90s, students will trace the technological, entertainment, communication and artistic evolution of television and investigate the dynamics of fiction and fact in contemporary programming. The course will illustrate the influence of TV in the development of our contemporary culture and the emergence of more culturally diverse and representative television images.

**0603.220 The Television Industry 3 s.h.**

*Prerequisite: 1501.111*

Designed to provide students with an overview of the contemporary broadcast industry, this course places major emphasis on the complex inter-relationships among stations, networks, programming, advertising, audiences and the F.C.C. Generally, this course is scheduled to provide for a small-group/large-group class set-up to accommodate guest speakers and lecturers.

**0603.221 The Radio Industry 3 s.h.**

*Prerequisite: 0603.220, must be a Communication major with a specialization in Radio/TV/Film and have completed 45 credit hours*

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.

**0603.222 Television Production I 3 s.h.**

*Prerequisite: 0603.220, must be a Communication major with a specialization in Radio/TV/Film, have completed 45 credit hours*

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 videotapes. Programming includes newscasts and 30-second commercials. In addition, a production lab meets one and a half hours each week.

**0603.224 Sound Communication 3 s.h.**

*Prerequisite: 1501.111, 1501.112, complete 30 semester hours*

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.

**0603.271 Film History and Appreciation II 3 s.h.**

*Prerequisite: 30 hours*

This course is a continuation of 0603.270 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.

**0603.272 Images of Women in Film****3 s.h.***Prerequisite: 30 hours*

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.

**0603.321 Television Production II****3 s.h.***Prerequisite: 0603.222*

This hands-on course provides experience in advanced television production. Students work in production teams which create, research, script, shoot and edit 30-minute programs for weekly airing on Rowan's cable network, channel 5 and Comcast cable. Students will shoot in the studio and in the field, learning to use digital production equipment in preparation for professional career work in television.

**0603.331 Radio Broadcasting II***Prerequisite: 0603.220, 0603.221*

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.

**0603.335 A/V Production Systems****3 s.h.***Prerequisite: 0603.221 or 0603.222 or permission of instructor*

The course expands the student's 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.

**0603.340 RTF Research & Criticism****3 s.h.***Prerequisite: completion of 75 semester hours*

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.

**0603.350 RTF Practicum****3 s.h.***Prerequisite: 75 credit hours, minimum 2.5 GPA, permission of instructor and RTF major*

RTF Practicum gives the student the opportunity to test out 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.

**0603.351 RTF Field Experience I (Fall)****3 s.h.***Prerequisite: 75 credit hours, minimum 2.5 GPA, permission of instructor and RTF 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.

## COURSE DESCRIPTIONS

<b>0603.352 RTF Field Experience II (Spring)</b>	<b>3 s.h.</b>
<i>Prerequisite: 75 credit hours, minimum 2.5 GPA, permission of instructor, and an RTF major</i> 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.	
<b>0603.353 RTF Field Experience III (Summer)</b>	<b>6 s.h.</b>
<i>Prerequisite: 75 credit hours, minimum 2.5 GPA, permission of instructor, and an RTF major</i> 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.	
<b>0603.370 Film Production I</b>	<b>3 s.h.</b>
<i>Prerequisite: must be a Communication major with a specialization in Radio/TV/Film, have completed 45 credit hours</i> This course introduces students to motion picture production. Students make a series of short 16mm films designed to familiarize them with camera operation, exposure and composition. The course covers the basic optics, mechanics and chemistry of motion picture technology.	
<b>0603.371 Film Production II</b>	<b>3 s.h.</b>
<i>Prerequisite: 0603.370 or Permission of Instructor</i> This is an intermediate 16mm production course. It emphasizes technical proficiency and the elements of narrative. Students work on short fictional films with non-sync sound. The course involves individual and crew production.	
<b>0603.372 American Film Directors</b>	<b>3 s.h.</b>
<i>Prerequisite: 45 hours</i> Through historical perspective and criticism, this course provides an in-depth study of films by American directors. This course may not be offered annually.	
<b>0603.373 The Movie Industry</b>	<b>3 s.h.</b>
<i>This course introduces students to the language of the technical elements of films and to a method for analyzing the art work created and the messages communicated by film. Students analyze the components of motion pictures including color, lighting, editing, scripting, directing and acting.</i>	
<b>0603.393 Film Scenario Writing</b>	<b>3 s.h.</b>
<i>Prerequisite: 45 hours</i> The course covers the basic technical requirements for writing movie scripts, 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.	
<b>0603.420 Current Issues in Electronic Media</b>	<b>3 s.h.</b>
<i>Prerequisite: 0603.220, I501.112</i> This course analyzes and discusses the impact that current trends in broadcast economics, regulation, and management have on program development, distribution and acquisition. This course often features guest speakers and lecturers who are working professionals within the industry.	
<b>0603.433 Television Program Packaging</b>	<b>3 s.h.</b>
<i>Prerequisite: 0603.220</i> 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.	

**0603.450 Television Documentary and Field Production****3 s.h.***Prerequisite: 0603.222, 0603.321*

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.

**0603.470 Advanced Film Production****3 s.h.***Prerequisite: 0603.371*

Students undertake an intensified study and practice of 16 mm motion picture production with emphasis on lighting, sound and directing. Crew exercises in sync-sound production are also an important part of the course. This course may not be offered annually.

**0603.471 Techniques of Documentary Film Production****3 s.h.***Prerequisite: 1010.371 or Permission of Instructor, 1010.370*

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 them a powerful tool for film expression. This course may not be offered annually

**0604 Advertising****0604.330 Introduction to Advertising****3 s.h.***Prerequisite: 30 hrs*

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.

**0604.331 Print Media Copywriting****3 s.h.***Prerequisite: 0604.330*

Students take this course as the first professional course in advertising. Students learn to write national style print copy using theory and contemporary trends. Topics include: Research tools, copy platform, objective setting, benefit-sell, idea development and headline strategies.

**0604.352 Advertising Strategies****3 s.h.***Prerequisite: 0604.331, 0604.430*

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.

**0604.355 Advertising Practicum 1-3 s.h.**

*Prerequisite: Completion of 75 credit hours and a 2.5 grade point average, Approval of Public Relations Chair*  
 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, submit the work to the faculty supervisor for grading.

**0604.415 Direct Response Advertising****3 s.h.***Prerequisite: 0604.331, 0604.430*

Students study how direct response advertising is used to get an advertising message to the consumer to produce an immediate action or response. The course covers direct mail, mail order, broadcast media techniques and web marketing. Students write and produce both print and broadcast media direct response packages.

## COURSE DESCRIPTIONS

<b>0604.430 Electronic Media Copywriting</b>	<b>3 s.h.</b>
<i>Prerequisite: 0604.331, For students with a declared specialization in Advertising only, except with permission of instructor</i>	
Working as individuals and in groups, students learn to plan and write radio and television commercials, as well as audio-visual scripts for promotional communications purposes. At least one script is produced.	
<b>0604.432 Media Planning</b>	<b>3 s.h.</b>
<i>Prerequisite: 0604.330, For students with declared Advertising specialization only except with permission of instructor</i>	
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.	
<b>0604.434 Advertising Campaigns - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: 0604.430</i>	
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 copy-writing skills and a well prepared final oral presentation.	
<b>0605 Communication Studies</b>	
<b>0605.301 Political Communication</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.112, either 2207.100, 2207.110 or 2207.200</i>	
Introduces students to the theory and critique of political, public discourse. The course seeks to heighten students' awareness of the inherently political nature of language, images, and other forms of public discourse. Students explore the relationship between publics and politics, as well as the discourses that constitute each. Students develop an original critique of a political artifact such as a political speech, cartoon, news story, or television program.	
<b>0605.330 International Media Communication</b>	<b>3 s.h.</b>
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.	
<b>0606 Public Relations</b>	
<b>0606.301 Basic Public Relations Writing</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.111, 1501.112, 0606.350, Specialization only or Permission of instructor</i>	
Basic Public Relations Writing introduces the student to the tasks of writing and editing required in a public relations position. They 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.	
<b>0606.305 Advanced Public Relations Writing</b>	<b>3 s.h.</b>
<i>Prerequisite: 0606.301, For students with declared Public Relations specialization only or permission of chair</i>	
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.	

**0606.350 Introduction to Public Relations****3 s.h.***Prerequisite: 0601.203*

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.

**0606.353 Case Studies in Public Relations - WI****3 s.h.***Prerequisite: 0606.305*

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.

**0606.354 Impact of Public Relations on the News****3 s.h.***Prerequisite: 0606.301, 0602.310*

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.

**0606.359 Public Relations Practicum****3 s.h.**

*Prerequisite: Completion of 75 Credit Hours, 2.5 Grade Point Average, Approval of Public Relations and Advertising Chair*

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.

**0606.360 Public Relations/Advertising Field Experience I****3 s.h.**

*Prerequisite: Completion of 75 credit hours, minimum 2.5 GPA, approval of department chair. Public Relations majors, 0606.350, 0606.301, 0606.305 or Advertising majors, 0604.330, 0604.331, 0604.430*

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.

**0606.362 Public Relations/Advertising Field Experience II****3 s.h.**

*Prerequisite: 0606.360, Completion of 75 credit hours, minimum 2.5 GPA, approval of public relations and advertising department chair*

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 completed Field Experience I and who seek to get an additional 3 credits of internship experience.

**0606.364 Public Relations/Advertising Field Experience III****6 s.h.**

*Prerequisite: Completion of 75 credit hours, minimum 2.5 GPA, approval of department chair, Public relations majors, 0606.350, 0606.301, 0606.305 or Advertising majors, 0604.330, 0604.331, 0604.430*

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 credit hours of their internship experience with the same sponsor at one consecutive 240 hour time.

## COURSE DESCRIPTIONS

<b>0606.454 Public Relations Planning - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: 0606.305, 0606.350, 0606.353, 0699.361</i>	
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	
<b>0607 Legal Aspects</b>	
<b>0607.335 Communication Law</b>	<b>3 s.h.</b>
<i>Prerequisite: 60 hours</i>	
This course examines laws that deal with the legal responsibilities of print, broadcast, and film media as well as public relations and advertising practitioners. Students analyze topics such as libel, privacy, broadcast regulations and copyright.	
<b>0699 Applied Communication</b>	
<b>0699.361 Introduction to Survey Research</b>	<b>3 s.h.</b>
<i>Prerequisite: 60 hours</i>	
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.	
<b>0699.363 Field Experience In Communication I</b>	<b>3 s.h.</b>
<i>Prerequisite: permission of instructor, 75 hours, Majors</i>	
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.	
<b>0699.364 Field Experience In Communication II</b>	<b>3 s.h.</b>
<i>Prerequisite: permission of instructor, 75 hours, Majors</i>	
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.	
<b>0699.365 Field Experience In Communication III</b>	<b>6 s.h.</b>
<i>Prerequisite: permission of instructor, 75 hours, Majors</i>	
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.	
<b>0699.462 Public Opinion</b>	<b>3 s.h.</b>
<i>Prerequisite: 0699.361 or 1506.330</i>	
This course includes the nature and role of public opinion, the dynamics of public opinion processes and the numerous factors which shape or influence opinions. 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, censorship and propaganda.	
<b>0701 Computer Science, General</b>	
<b>0701.100 Computer Literacy</b>	<b>3 s.h.</b>
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.	

**0701.102 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 Intermediate Algebra (1701.121) is expected for this course.

**0701.104 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 Intermediate Algebra (0701.121) is expected.

**0701.140 Enterprise Computing I** **4 s.h.**

*Prerequisite: 0701.100 or equivalent or have passed 0701.050 and 1701.123 or 1703.125*

This course will acquaint students with data representation, data organization and data storage utilizing basic data structures. Students will perform basic file manipulation by reading data from files, writing data to files and data file formatting. Students will also understand basic logic, basic object oriented design and programming and the concepts of software engineering.

**0701.141 Enterprise Computing II** **3 s.h.**

*Prerequisite: 0704.140*

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.

**0701.200 Computing Environments** **3 s.h.**

*Prerequisite: 0701.100 or equivalent or have passed the Rowan Computer Competency Exam [0701.050]*

Students will be exposed to a variety of computing environments. The course will include extensive hands-on of 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.

**0701.205 Computer Laboratory Techniques** **3 s.h.**

*Prerequisite: 0704.113 or 0704.103*

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.

**0701.210 Introduction to Computer Networks and Data Communications** **3.0 s.h.**

*Prerequisite: 0701.200 or equivalent, This course is not available to Computer Science majors or minors*

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.

**0701.395 Topics in Computer Science** **3 s.h.**

*Prerequisite: permission of the instructor*

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.

**0702 MIS****0702.344 Supervised Internship in MIS****3.0 s.h.***Prerequisite: Junior standing as a Business or Accounting Major*

This course includes field experience in government, business, industry or non-profit organizations. Students complete assignments that prepare them for productive employment upon graduation. The MIS faculty member will partner with each employer and student to define and enrich the student's work experiences and to monitor and assess the learning process.

**0702 MIS Information Processing for Managers****0702.300 Integrated Software Tools for Business****3 s.h.***Prerequisite: 0701.200*

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.

**0702.322 Principles of System Design****3 s.h.***Prerequisite: Business or Accounting Major, completion of 57 semester hours*

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.

**0702.330 Business Systems- Fall semester only****3 s.h.***Prerequisite: Completion of 57 s.h. as a Business Administration or Accounting Major*

This course is designed to introduce business students to the terminology and administrative issues that arise when simultaneously managing multiple systems in a business environment. Students must demonstrate effective communications and a clear understanding of the organization implications when working with each of the business disciplines when supporting and administering systems.

**0702.332 E-Business - Information Systems Perspectives - Fall semester only****3 s.h.***Prerequisite: Completion of 57 s.h. as a Business Administration or Accounting Major*

The course explores the nature of electronic business including such topics as current business models, various ethical implications, international issues in e-business, and e-commerce payment mechanisms. Students will also gain practice in creating interactive web pages that process form data, such as provide the foundation for electronic-business.

**0702.334 Management Information Systems****3 s.h.***Prerequisite: Completion of 57 s.h. as a Business Administration or Accounting Major*

This course introduces the concept of information as a resource in business. It covers the systems approach for decision making and describes how the computer can be used in this process. Case studies are used to integrate the course material.

**0702.338 Design of Database Systems - Fall semester only****3 s.h.***Prerequisite: Completion of 57 s.h. as a Business Administration or Accounting Major*

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.

**0702.338 Advanced Database Management - Spring semester only**

*Prerequisite: 0702.338, Completion of 90 s.h. as a Business Administration or Accounting Major*

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.

**0702.340 Decision Support Systems****3 s.h.**

*Prerequisite: 0702.334, 0702.300, Junior standing as a Business or Accounting Major with completion of at least 57 semester hours*

Students study principles and techniques of building business models using decision support systems. Each student is assigned a number of case assignments using a 4th generation language. This course demonstrates the importance of "what-if" scenarios in the business environment.

**0702.420 Seminar in Management Information Systems - Spring semester only****3 s.h.**

*Prerequisite: Permission of instructor, Completion of 90 s.h. as a Business Administration or Accounting Major*

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.

**0702.425 Project Management- Fall semester only****3 s.h.**

*Prerequisite: Completion of 90 s.h. as a Business Administration or Accounting Major and 0702.322*

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.

**0702.427 Network Management****3 s.h.**

*Prerequisite: 0702.334, 0702.330, Completion of 90 s.h. as a Business Administration or Accounting Major*

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.

**0702.428 Business Web Applications****3 s.h.**

*Prerequisite: Completion of 90 s.h. as a Business Administration (0501) or Accounting (0403) Major, 0701.140, 0702.410*

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.

**0702.450 MIS Capstone Experience- Spring semester only****3 s.h.**

*Prerequisite: Completion of 90 s.h. as a Business Administration or Accounting Major, 0702.425, 0702.428*

This course integrates the material covered in the MIS specialization courses, so that students can understand how each of the elements work together. It also affords an opportunity for students to complete a complex, realistic project where they must utilize and hone skills they learned in prerequisite courses (i.e. project management concepts, systems analysis and design methodologies, data modeling and database design, programming skills, interpersonal skills, writing skills, and problem solving skills). This course will also reinforce ethical awareness and good decision making in IS situations, and discuss the specific professional and ethical responsibilities of the IS practitioner.

**0704 Computer Programming****0704.103 Computer Science and Programming** 4 s.h.

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.

**0704.110 An Introduction to Programming Using Robots** 3 s.h.

*Prerequisite: 0701.100 or equivalent*

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.

**0704.112 Java for Object Oriented Programmers** 1 s.h.

*Prerequisite: 0704.103 or equivalent experience*

This course is designed for students who have substantial programming experience in an object-oriented language, but who need to learn Java as prerequisite knowledge for other courses in the curriculum. Students will study the syntax and semantics of Java, classes (inheritance, encapsulation, polymorphism, methods, etc.) control structures, input/output, and documentation schemes.

**0704.113 Introduction to Object Oriented Programming** 4 s.h.

*Prerequisite: Formal and declared status as a Computer Science major or minor or permission of instructor, 1701.121 or the high school equivalent*

Introduces the fundamental concepts of programming from an object-oriented perspective. Topics include simple data types, control structures, an introduction to array and string data structures and algorithms, as well as debugging techniques and the social implications of computing. The course emphasizes modern software engineering principles and developing fundamental programming skills in the context of a language that supports the object-oriented paradigm. Includes basic UNIX commands and editing.

**0704.114 Object Oriented Programming and Data Abstraction** 4 s.h.

*Prerequisite: Formal and declared status as a Computer Science major or minor or permission of instructor, 0704.113, a score of 4 or 5 on the Computer Science Advanced Placement 'A' exam, or 0704.103 and 0704.112; 1701.122 or the high school equivalent*

Objects and data abstraction continues from Introduction to Object-Oriented Programming to the methodology of programming from an object-oriented perspective. Through the study of object design, this course also introduces the basics of human-computer interfaces, graphics, and the social implications of computing, with an emphasis on software engineering. Includes advanced UNIX commands.

**0704.115 C++ for Java Programmers** 1 s.h.

*Prerequisite: 0704.113, or equivalent experience*

This course is designed for students who have substantial programming experience in an object-oriented language such as Java, but who wish to learn C++, a language that is still commonly used in research and industry. Students will study the syntax and semantics of C++, pointers, classes (inheritance, encapsulation, polymorphism, methods, etc.), control structures, file processing, and GUI programming.

**0704.222 Data Structures and Algorithms** 4 s.h.

*Prerequisite: 1703.160, 0704.114, or A- or better in 0704.103 and A- or better in 0704.112 and Co-requisite 0704.114*

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.

**0704.225 Data Structures for Engineers****3 s.h.***Prerequisite: 0704.103, 1701.236*

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.

**0704.233 Structured Design and Programming Using COBOL****3 s.h.***Prerequisite: 0701.102 or 0704.103 or 0704.222*

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.

**0704.234 Advanced Structured Design and Programming Using COBOL****3 s.h.***Prerequisite: 0704.233*

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.

**0704.305 Web Programming****4 s.h.***Prerequisite: 0704.222, 0701.205*

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.

**0704.315 Programming Languages****3 s.h.***Prerequisite: 0704.222 and 0706.205*

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.

**0704.325 Programming in Ada****3 s.h.***Prerequisite: 0704.222*

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.

**0704.327 Power Java****3 s.h.***Prerequisite: 0704.222*

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.

**0704.380 Object Oriented Design****3 s.h.***Prerequisite: 0707.340*

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.

## COURSE DESCRIPTIONS

### **0704.390 Operating Systems** 3 s.h.

*Prerequisite: 0704.222 and 0706.205*

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.

### **0704.391 Concurrent Programming** 3 s.h.

*Prerequisite: 0704.390*

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, multi-processors, and an overview of distributed programming (distributed-memory multic平computers, interprocess communication, message passing, remote procedure call, rendezvous). The course includes developing concurrent programming skills by using a language that supports the multithreaded program.

### **0704.392 System Programming and Operating System Internals** 3 s.h.

*Prerequisite: 0704.390, 0701.205*

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.

### **0704.394 Distributed Systems** 3 s.h.

*Prerequisite: 0706.205 or 0909.242, 0704.222 or 0704.225*

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.

### **0704.400 Computer Science Senior Project** 3 s.h.

*Prerequisite: 0704.315, 0707.340*

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.

### **0704.401 Compiler Design** 3 s.h.

*Prerequisite: 0704.315, 0707.210*

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.

### **0704.430 Database Systems: Theory and Programming** 3 s.h.

*Prerequisite: 0707.340*

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)

## 0706 Hardware and Computer Organization

### 0706.205 Computer Organization

3 s.h.

*Prerequisite: 0704.103 or 0704.113; 1703.160*

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. This course is not open to students who have taken 0704.204 Assembly Language Programming.

### 0706.310 Principles of Digital Computers

3 s.h.

*Prerequisite: 0706.205; Co-requisite 0706.311*

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 0706.370 Digital Design and Lab.

### 0706.311 Digital Computer Laboratory

1 s.h.

*Prerequisite: 0706.205; Co-requisite 0706.310*

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 Computer.

### 0706.410 Data Communications and Networking

3 s.h.

*Prerequisite: 0707.340, 1702.360 or permission from the instructor*

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.

### 0706.412 Advanced Computer Architecture

3 s.h.

*Prerequisite: 0706.310 and 0706.311*

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.

### 0706.415 Wireless Networks, Protocols and Applications

3 s.h.

*Prerequisite: 0706.410 or permission of instructor*

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.

**0706.416 TCP/IP and Internet Protocols and Technologies** **3 s.h.***Prerequisite:* 0706.410

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.

**0707 Theory Methodology and Applications****0707.210 Foundations of Computer Science****3 s.h.***Prerequisite:* 1701.122, or 1701.130 , or 1701.131;1703.160; *Co-requisite* 0704.222

This course provides an introduction to the theoretical foundations of computer science, including finite automata, context-free grammars, Turing machines, and formal logic.

**0707.310 Robotics****3 s.h.***Prerequisite:* 0704.103 or 0704.113; 0704.222 or 0901.202; 1701.210 or 1707.235

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.

**0707.321 Principles of Software Engineering****3 s.h.***Prerequisite:* 0704.222 or 0909.242, 1506.202, 1702.360

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 on mini-projects.

**0707.322 Software Engineering Practicum****3 s.h.***Prerequisite:* 0707.321

Students will apply their knowledge from Principles of Software Engineering to develop a software system, working in a team. The project will be taken through each of the major software development phases, and student teams will create appropriate deliverables for each phase.

**0707.340 Design and Analysis of Algorithms****3 s.h.***Prerequisite:* 0704.222, 0707.210

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.

**0707.350 Computer Cryptography****3 s.h.***Prerequisite:* 0707.210

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.

**0707.360 Computer Graphics****3 s.h.***Prerequisite:* 1701.210, 0704.315

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.

**0707.370 Introduction to Information Visualization****3 s.h.***Prerequisite: 1701.210 or 1701.236*

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.

**0707.380 Introduction to Computer Animation****3 s.h.***Prerequisite: 1701.210 or 1701.236, 1902.200*

This is a junior/senior level course that takes a look at Computer Animation from a programmer's 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.

**0707.422 Theory of Computing****3 s.h.***Prerequisite: 0704.222, 0707.210, 1701.131*

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.

**0707.450 Artificial Intelligence (AI)****3 s.h.***Prerequisite: 0707.210, 0704.222, 1703.160*

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.

**0707.460 Computer Vision****3 s.h.***Prerequisite: 1701.210, 1702.360, 0704.222*

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.

**0707.470 Theory and Applications of Pattern Recognition****3 s.h.***Prerequisite: 0909.351, 0909.331, or permission of the instructor*

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.

**0799 Computer Science, Other****0799.300 Computer Field Experience****3 s.h.***Prerequisite: permission of instructor,*

Students are assigned projects in a professional environment.

**0801 Education****0801.102 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.

**0801.103 Foundations of Education****2 s.h.***Prerequisite: 0801.102*

In this course, students will continue their study of learning communities begun in the Learning Communities course by addressing potential problems and examining learning communities in operation with careful consideration of how pedagogy, curriculum, and classroom management interact to make them effective. Students will also receive an introduction to the historical, philosophical, political, economic, legal, and sociological foundations of education with an emphasis on the issues of diversity and equity.

**0801.200 Literacy, Learning and Curriculum****6 s.h.***Prerequisite: 0801.102, 0801.103*

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.

**0801.300 Instructional Planning and Collaboration****3 s.h.***Prerequisite: 0801.200*

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.

**0801.301 Instructional Implementation and Collaboration****3 s.h.***Prerequisite: 0801.300*

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.

**0801.318 Practicum: Assessment in Elementary Classrooms****1 s.h.***Prerequisite: Admission to Certification Program, Co-requisites: 0802.317 and 0808.316*

This field-based course provides an opportunity for candidates to apply instructional knowledge and skills related to inquiry-based instruction, assessment, and differentiation in elementary school field placements. Building on school district materials and mandates, candidates design appropriate assessments for interdisciplinary units of inquiry and review, administer, and reflect on results of varied assessments of student learning. This course provides a required field component.

**0801.400 Teaching in Inclusive Classrooms****4 s.h.***Prerequisite: 0801.300, 0801.301*

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.

**0801.401 Developing and Adapting Instruction in Elementary Classrooms****4 s.h.***Prerequisite: 0801.301, 0801.402*

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.

**0801.402 Developing and Adapting Assessment for all Learners****3 s.h.***Prerequisite: 0801.300, 0801.301*

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.

**0801 Education, General****0801.104 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.

**0802 Elementary Education****0802.098 Contemporary Early Childhood Education: Special Topics****1 to 6 s.h.***Prerequisite: Permission of instructor*

Considers the principles and practices of special topics in early childhood education. This course provides in-depth development of special topics in early childhood education. Topics may change each semester.

**0802.099 Contemporary Elementary Education: Special Topics****1 to 6 s.h.***Prerequisite: Permission of instructor*

This course covers principles and practices of special topics in elementary education, and provides an in-depth development of special topics in elementary education. Topics may change each semester.

**0802.270 Teaching in Learning Communities I****2 s.h.***Prerequisite: 0801.104*

This course for teacher candidates in Elementary and Subject-Matter 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,

## COURSE DESCRIPTIONS

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.

### **0802.272 Teaching in Learning Communities II**

**2 s.h.**

*Prerequisite: 0802.270, Co-requisite: 0830.280*

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.

### **0802.282 Teaching in Learning Communities II- Art**

**3 s.h.**

*Prerequisite: 0802.270*

Teaching in Learning Communities II- Art furthers the understanding of successful and caring learning communities begun with the course Teaching in Learning Communities I within the art classroom. TLC II- Art is art education specific presenting broad and in-depth knowledge for teaching art grades K-12 in the following areas: the artistic development of children and adolescents; an understanding of performance-based standards for the visual arts; curriculum and instructional planning; designing assessment strategies and; building community partnerships to establish collaborative learning opportunities through the visual arts. A field component is a requirement of this course.

### **0802.284 Teaching in the Music Learning Community II**

**3 s.h.**

*Prerequisite: 0802.270*

Teaching in the Music Learning Community II, 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.

### **0802.290 Educational Studies I: Curriculum Planning and Decision Making**

**3 s.h.**

*Prerequisite: 4 year students/2nd semester sophomores, 2 year students/1st semester juniors*

This course focuses on the teacher as planner/decision maker for the roles of curriculum designer, organizer, and instructor through study of the social studies curriculum. Teacher candidates explore influences on the curriculum and learn to plan a unit and lesson plans. A field component provides opportunities to observe in classrooms and to study schools, learners, teaching, and curriculum organization. Students micro-teach peers.

### **0802.317 Inquiry and Discovery in the Elementary Classroom**

**3 s.h.**

*Prerequisite: Admission to Elementary or Elementary Post Bacc, Co-requisites: 0802.318 and 0808.316*

This course examines the use of established elementary education standards in science, social studies, health, and the arts and how interdisciplinary, thematic units of inquiry facilitate meeting those standards. Candidates apply current research on the way children learn and effective teaching 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. An interdisciplinary unit of inquiry is developed. A field component is required.

### **0802.336 Mathematics Pedagogy for Elementary Teachers**

**2 s.h.**

*Prerequisite: 0802.317, 0802.318 and 0808.316, Co-requisites: 0802.338 and 0830.351*

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.

**0802.338 Practicum in Mathematics and Literacy** **1 s.h.***Prerequisite: 0802.317, 0801.318, Co-requisites: 0802.336, 0830.351*

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.

**0802.350 Educational Studies II: Problems of Practice** **3 s.h.***Prerequisite: 4 year students/2nd semester sophomores, 2 year students/1st semester juniors*

Three current problems of practice are considered: (1) the purposes of schooling and classroom culture (in learning community classrooms); (2) assessment and evaluation of learning (including standardized tests, teacher-made tests, informal assessments); and (3) equity considerations in relationship to evaluation and teaching.

**0802.370 Educational Studies III: Subject Specific Pedagogy** **3 s.h.***Prerequisite: 0802.290, 0802.350, junior level standing, take concurrently with 0802.390, 1701.201 or permission of the Elementary/Early Childhood Education Department*

This course in pedagogy for elementary school teacher candidates utilizes mathematics and science as the vehicle for developing an understanding of teaching and learning. Utilizing current research findings about the ways children learn and about effective teaching of mathematics and science, teacher candidates develop effective lesson plans and units. They also apply and extend their knowledge as they participate in a field experience.

**0802.390 Educational Studies IV: Organizing and Managing Instruction** **3 s.h.***Prerequisite: 0802.290, 0802.350, junior level standing, take concurrently with 0802.370*

This course focuses on positive strategies for instructional organization and classroom management as means for preventing disruptive behavior. A management plan (for a learning community classroom) will be developed. This course includes a field application/practice component of 8 weeks (part-time) in the same classroom placement used for Educational Studies III in addition to the regular class meetings.

**0802.445 Elementary Education Clinical Seminar** **1 s.h.***Prerequisite: Acceptance into Clinical Practice, Co-requisites: 0802.448, 0833.420*

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 stake in education. Interviewing skills and a professional portfolio will be developed. An associated field component (Clinical Practice) is required as a co-requisite.

**0802.446 Clinical Practice in Early Childhood Education** **10 s.h.***Co-requisites: 0802.447*

The clinical practice experience is a supervised, full-time activity conducted in an early childhood 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. Requirements: admission to Clinical Practice; should be taken senior year.

**0802.447 Early Childhood Education Clinical Seminar** **1 s.h.***Co-requisites: 0802.446*

This capstone seminar provides early childhood education teacher candidates with a supportive atmosphere in which to synthesize the pre-service components of their academic preparation with actual experience,

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emerging issues in the field of education, and their transition into the profession. Teacher 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 stake in education. Interviewing skills and a professional portfolio will be developed. An associated field component (Clinical Practice) is required as a co-requisite. Requirements: completion of junior level professional sequence of courses, admission to Clinical Practice. Should be taken senior year.

### **0802.448 Clinical Practice in Elementary Education**

**10 s.h.**

*Prerequisite: 0802.336, 0802.338, and 0830.351 Co-requisites: Clinical Practice Seminar for Elementary Education, 0833.420*

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.

### **0802.480 Student Teaching**

**12 s.h.**

This senior level field experience provides students with the opportunity to practice applying the knowledge and skills needed to teach. It is a full semester experience that ends with the students teaching full-time. The student teaching experience is closely supervised.

### **0802.481 Student Teaching Seminar**

**1 s.h.**

This seminar is a capstone course for students majoring in Elementary Education. The course synthesizes the pre-service components of the teacher education program so that graduates develop a holistic conceptualization of their approach/philosophy of teaching.

## **0803 Secondary Education, General**

### **0803.330 Practicum in Teaching and Learning A**

**1 s.h.**

*Co-requisites: 0833.330 and 0850.330 or 0852.330 or 0851.330 or 0834.330 or 0838.330 or 0808.316*

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, Teaching and Learning Foreign Language A, Teaching and Learning Science A, or Teaching and Learning Business A. The course will consist of 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.

### **0803.332 Practicum in Teaching and Learning B**

**1 s.h.**

*Co-requisites: 0803.350 and 0833.331 or 0834.331 or 0838.331 or 0850.331 or 0851.331 or 0852.331*

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, Teaching and Learning Foreign Language B, Teaching and Learning Science, or Teaching and Learning Business 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.

### **0803.336 Subject Matter Clinical Seminar**

**1 s.h.**

*Prerequisite: 0803.335*

This capstone seminar is designed to provide pre-service elementary teachers 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, emerging issues in the field of education, and their transition into the profession. Students develop a holistic concept of their dispositions expected of the profession; and demonstrate knowledge of current critical and contemporary issues facing educators and those who hold stake in elementary education. Interviewing skills and professional portfolio will be developed during this course. A co-requisite field internship is required.

**0803.350 Teaching Students of Linguistic and Cultural Diversity** **1 s.h.**

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.

**0803.435 Clinical Practice in Subject Matter Education** **10 s.h.**

*Co-requisites: 0803.336*

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 and a professional portfolio will be developed during this course. A co-requisite field internship is required.

**0803.490 Seminar in Secondary Teaching** **1 s.h.**

*Co-Requisite with 0803.481*

This one-credit capstone course is a required supplement to the student teaching experience. The course is intended to assist our students to develop the knowledge and skills necessary to become effective classroom teachers and reflective decision makers. This course is further intended to prepare our students to become members of a community of learners within a diverse global society. (Implemented Spring 2004)

## **0808 Special Education, General**

**0808.102 Resources and Community Agencies for Persons with Disabilities** **3 s.h.**

*Prerequisite: 0810.110*

This course focuses on training and education necessary to prepare all types of handicapped individuals for successful community living. It provides opportunities for observation of handicapped individuals and youth in a variety of educational and work settings. Field experiences in school/agencies required.

**0808.110 Introduction to Special Education I** **3 s.h.**

In this course students are introduced to the Teacher of the Handicapped program. Major topics include the history and development of special educational services, legislation and litigation, the characteristics of children with various disabilities, the impact of exceptionalities on families, and multicultural issues in special education.

**0808.111 Introduction to Special Education II** **3 s.h.**

*Prerequisite: 0808.110, matriculation in Teacher of the Handicapped program*

In this course students learn about the service delivery system in special education. Major topics include early intervention programs, issues in mainstreaming, preparation of secondary students for transition to work, and the role of special educators in the schools. Observation in several field settings is an important part of this course.

**0808.130 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.

**0808.206 Multicultural Issues in Special Education****3 s.h.**

*Prerequisite: 0808.102, 0808.111, matriculation in Teacher of the Handicapped program*

This course gives attention to contrasting value systems, difficulties in dialogue and communication, limitation in physical and economic resources and available educational programming, all of which are seen in relation to problems originating with the handicap. Observation and participation in the community is encouraged.

**0808.230 Language and Cognition of Students with Special Needs****3 s.h.**

*Prerequisite: 0808.110, 0808.111, matriculation in Teacher of the Handicapped program*

In this course students learn to identify deviations from normal development in cognition and language using previously learned knowledge about normal development. Students learn to apply their knowledge of language and cognitive development to the design of instruction in spoken language, reading, math, and social development for students with exceptionalities. Opportunities will be provided for students to apply their knowledge to case studies.

**0808.307 Assessing Students with Exceptional Learning Needs****3 s.h.**

*Prerequisite: 0808.102, 0808.111, matriculation in Teacher of the Handicapped program*

**0808.308 Assistive Technology and Transition Planning****3 s.h.**

*Prerequisite: 0808.130*

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 pre-school; preschool to elementary; elementary to secondary; and secondary to post-secondary and work environments). A field component will be required.

**0808.316 Differentiated Instruction in the Inclusive Classroom****2 s.h.**

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.

**0808.319 Planning Instruction for Students with Special Needs****3 s.h.**

*Prerequisite: 0808.102, 0808.111, matriculation in Teacher of the Handicapped program*

Students are introduced to the knowledge base on planning for classroom management and instruction in special education. This course must be taken in conjunction with the Junior year Practicum since field-based assignments are an important part of this course. Students completing this course will be able to organize effective educational environments and instructional programs.

**0808.320 Implementing Instruction for Students with Special Needs****3 s.h.***Prerequisite: 0808.319*

This course promotes the use of research-based instructional procedures across content areas (e.g. reading and functional skills), ability, and age levels. In order that students may apply the knowledge base, this course and Junior Practica must be scheduled for the same semester. Other points of course emphasis include: methods of assessing teacher performance, the application of computer skills, and consultation with parents and peer professionals (e.g. mainstream teachers and the College Resource Committee.)

**0808.325 Practicum in Special Education I****4 s.h.***Prerequisite: 0808.102, 0808.111, matriculation in Teacher of the Handicapped program*

Students who meet stated criteria may apply for Practicum, which provides placement in two special education classroom settings during the semester. Practicum provides students with the opportunity to actively participate in all phases of the instructional program. Placements provide involvement with students having different handicapping conditions. Students are placed in the additional field placement in the spring semester.

**0808.326 Practicum in Special Education II****4 s.h.***Prerequisite: 0808.325*

Students are placed in two additional field placements in the spring semester.

**0808.330 Workshop in Special Education****1-6 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.

**0808.360 Positive Behavioral Support Systems for Students with****Exceptional Learning Needs****3 s.h.***Prerequisite: 0808.102, 0808.111, matriculation in Teacher of the Handicapped program*

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.

**0808.407 School and Family Issues for Children with Ongoing Health Care Needs****3 s.h.***Prerequisite: 0808.102, 0808.111, matriculation in Teacher of the Handicapped program*

This course explores various health care needs of the chronically ill school aged child. There is an emphasis on the importance of collaboration between school, home and health care providers. Family dynamics are discussed and resources are identified. The teacher's role in meeting both the educational and health care needs of children is stressed.

**0808.415 Specialized Instruction for Students with****Exceptional Learning Needs I (K to Grade5)****5 s.h.***Prerequisite: 0808.326*

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 Elementary Specialization to teach elementary-aged children 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.

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<b>0808.416 Specialized Instruction for Students with Exceptional Learning Needs II (K to Grade 12)</b>	<b>5 s.h.</b>
<i>Prerequisite:</i> 0808.326	
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.	
<b>0808.445 Clinical Seminar in Special Education</b>	<b>1 s.h.</b>
<i>Prerequisite:</i> 0808.326, 0808.416 or 0810.320	
This senior level course is designed to be taken with Clinical Practice in Special Education. The seminar will focus on three major areas. These include: issues within the candidate's area of specialization, application of effective teaching research, and analysis and evaluation of the clinical practice experience. The course is intended to be a capstone experience for all students in the Teacher of Disabilities Program.	
<b>0808.450 Clinical Practice in Special Education</b>	<b>4 s.h.</b>
<i>Prerequisite:</i> 0808.326	
As the culminating field experience for seniors in the Teacher of Disabilities 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.	
<b>0810 Education of Students with Cognitive Impairments</b>	
<b>0810.320 The Severely Retarded Child: Educational Needs and Programs</b>	<b>3 s.h.</b>
<i>Prerequisite:</i> 0808.326	
This course provides an overview of educational programming for people with severe and profound handicapping conditions. Educational needs and instructional strategies for these students will be emphasized. Current literature will be reviewed to formulate educational strategies for those with severe disabilities. The ability to apply effective interventions will be demonstrated through a field based tutorial assignment.	
<b>0810.401 Teaching Students with Emotional and Behavioral Problems</b>	<b>3 s.h.</b>
The course will discuss the characteristics of students with emotional and behavioral disorders, related laws and regulations, and services for this population. Social and emotional factors that affect behavior and learning will be explored. Emphasis will be placed on the psychodynamic aspects of the school setting as well as appropriate academic and social skills instruction, and pro-social interventions to meet the needs of students with difficulties in social and emotional adjustments.	
<b>0810.405 Educating Students with Severe/Profound Disabilities</b>	<b>6 s.h.</b>
<i>Prerequisite:</i> 0808.326	
This course provides an overview of the knowledge base concerning educational programming for children and adults with severe and profound disabilities. A functional perspective will be applied in developing individualized objectives and programs. Current research literature will be reviewed to formulate educational assessment and instructional strategies. Intervention strategies will be applied through extensive field based tutorial assignments which will involve 30 hours of field experience.	

## **0817 Developmental Education**

### **0817.100 Improving Personal Reading Skills**

**3 s.h.**

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.

### **0817.180 Reading and Study Skills Improvement**

**1.5 s.h.**

This basic skills quarter course aids students who need to refine their reading skills. Instruction emphasizes the efficient use of reading skills, necessary for success in college. 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.

## **0819 Education of the Physically Impaired**

### **0819.410 Cerebral Palsy: Its Individual and Community Problems**

**3 s.h.**

*Prerequisite: 0808.326*

This course presents a focus on a comprehensive multidisciplined 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.

## **0821 Foundations**

### **0821.150 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.

### **0821.230 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.

### **0821.300 Intercultural Studies in Foundations of Education**

**3 s.h.**

Students examine the ways and areas in which ethnic groups in schools are experiencing success, controversy and crisis. Themes of this course focus on both large city and small city schools. Other central themes relate to cultural conflicts in the school resulting from the imposition of value and behavior patterns on another group. (May not be taken in lieu of Educational Policy II)

### **0821.308 Group Theory and Behavior in Instruction**

**3 s.h.**

Students study the interactive process in group instruction. They use social and psychological theories related to group process to help them gain understanding and skills in teaching effectively in group situations including the total classroom group.

### **0821.320 Urban Educational Trends**

**3 s.h.**

Students examine the many ways urban education is in a state of crisis. Course themes examine how city schools are being condemned, assessed and analyzed as never before and how city schools accommodate vast numbers of students but fail to provide satisfactory programs for at least one-third of these students.

### **0821.380 Educational Sociology**

**3 s.h.**

Students explore the application of sociological and anthropological data to the institution, processes, structure and function of formal education in a complex industrialized society.

**0822 Educational Psychology****0822.215 Educational Psychology****3 s.h.***Prerequisite: 2001.100 or 2001.104*

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.

**0822.320 Learning & Behaviorism****3 s.h.***Prerequisite: 2001.104*

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.

**0823 Early Childhood Education****0823.220 Inquires into Teaching and Learning in Early Childhood Education and Early Childhood Special Education****3 s.h.**

This course is a broad overview of the field of early childhood education and the issues that affect it. Students are introduced to the impact of historical, political, social and economic issues on the classroom. Standards, philosophies, theories, and teaching and learning principles that underpin early childhood education are revealed to enable students to begin developing a personal philosophy of how children learn. The course has four themes: Learners and Learning, Knowledge and Knowing, Teachers and Teaching, Schools and Schooling. Each theme is examined through autobiography, diversity, collaboration, and reflection. This course includes field visits in multiple settings. Offered in the Fall.

**0823.221 Family, Community and School Relationships****3 s.h.**

This course is designed to heighten students' awareness of the roles family and community have on a child's success in school. Students will develop the understanding that all children must be seen in the context of their community environment, including their families, schools, communities, and the wider society. Students will be challenged to grasp the complex web of relationships and influences that comprise the child's worldview and to develop skills in working effectively with all elements of that web in order to provide positive educational outcomes for the child. This course will include frequent field visits. Course offered in the Spring.

**0823.320 Growth and Learning: The PreSchool Age Child, Birth - 5****3 s.h.***Prerequisite: 0823.320, Co-requisite: 0823.322*

This course will build upon General Education coursework (Child Development, Educational Psychology, and Introduction to Psychology). Students will use practical applications that stem from these foundational courses to understand how young school age children grow and learn from Birth through age 5. Students will be able to apply theories of typical and atypical child development in early childhood preschool and care settings with direct implications for teaching, learning and care. Students will be able to use developmentally appropriate practice as a foundation for planning and decisions. Students 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 will be required. Course offered in the Fall.

**0823.321 Planning, Integrating, and Adapting Curriculum - Math and Science****3 s.h.***Prerequisite: 0830.320, Co-requisite: 0823.321*

This course will start from the perspective of the pre-service early childhood teacher educator and explore their experiences learning science and mathematics. Students will reflect on their own prior experiences with math and science and discover the impact of those experiences on their feelings of efficacy. Students will experience teaching strategies and processes that they are expected to master and use in teaching math and science to young children. Within an integrated framework, students will develop the conceptual knowledge base that they need in order to design a coherent science and mathematics program with developmentally appropriate activities and expectations. This course involves field trip visits.

**0823.322 Growth and Learning: The Primary Grade Child K-3** **3 s.h.**  
 This course will continue to build upon General Education coursework (Child Development, Educational Psychology, and Introduction to Psychology). Students will use practical applications that stem from these foundational courses to understand how young school age children grow and learn from Kindergarten through third grade. Students will be able to apply theories of typical and atypical child development in the classroom with direct implications for teaching and learning. Students will be able to use developmentally appropriate practice as a foundation for planning and decisions. Students 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 affirms and respects all children. Field visits will be required.

**0823.430 Observation, Assessment, and Evaluation of Diverse Learners** **3 s.h.**

*Prerequisite: 0823.322, Co-requisite: 0823.431*

In this course students learn how to identify, select, implement, evaluate, interpret, and integrate appropriate informal and formal assessment strategies. Students will plan and individualize curriculum and teaching practices in the major areas of assessment, including cognitive, social-emotional, communication, motor, adaptive, and aesthetic development. Further, the student will learn how to communicate and integrate assessment results from others as an active part in the development and implementation of IEP and IFSP goals for children with special developmental learning needs. This course includes field visits.

**0823.431 Planning, Integrating and Adapting Curriculum across Content Areas** **3 s.h.**

*Prerequisite: 0823.322, Co-requisite: 0823.430*

This curriculum course considers the areas of Social Studies, Music, Movement, Art, and Drama as disciplines with a major focus on, the integration of curriculum in a rich learning environment. Students will understand the interdisciplinary nature of curriculum for young children, design classroom communities that enhance learning by creating environments that reflect the standards. Further, students will learn and practice the art of facilitating classroom learning centers and classroom activities. Finally, students will be able to identify, select, and plan developmentally appropriate activities and expectations. Students will demonstrate effective teaching strategies and the ability to plan units, themes, and lessons using behavioral objectives and a systematic thought process for planning. Field experiences will take place on alternate weeks for knowledge and skill application and understanding.

## **0827 Educational Administration**

**0827.559 Law and Ethics for School Leadership** **3 s.h.**

*Prerequisite: 0828.546*

Students study and understand and demonstrate the ability to identify legal issues involved in personal administration, school district government and operation, state aid, handicapped children and student rights. Includes a study of the legal structure of the New Jersey school system. This course includes a field experience component.

## **0828 Leadership Studies**

**0828.100 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.

**0828.205 Leadership Seminar I** **2 s.h.**

*Prerequisite: 0828.100, 0606.200*

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.

<b>0828.305 Leadership Seminar II (capstone)</b>	<b>3 s.h.</b>
<i>Prerequisite: 0828.100, 0828.205</i>	
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.	
<b>0830 Reading Education</b>	<b>3 s.h.</b>
<b>0830.120 Literacies in Today's World</b>	<b>3 s.h.</b>
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.	
<b>0830.280 Teaching Literacy</b>	<b>3 s.h.</b>
<i>Co-requisite: 0802.272</i>	
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.	
<b>0830.301 Foundations of Reading</b>	<b>3 s.h.</b>
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 instruction in the elementary school, ranging from emergent literacy to comprehension of narrative and expository discourse are covered. There is an emphasis on strategies for teaching word recognition skills, vocabulary and guided reading lessons. The importance of literature-enrichment activities and making curricular connections is highlighted.	
<b>0830.310 Teaching Reading in the Content Areas</b>	<b>3 s.h.</b>
This course helps students integrate reading methods and strategies into subject matter instruction. Students learn a basic format for lesson planning. They acquire an understanding of the reading process and examine a variety of instructional techniques for assessing pupil abilities, selecting suitable materials, and fostering language, comprehension, and study skills needed for mastery of academic subjects.	
<b>0830.319 Pedagogy II: Teaching Reading in the Content Areas (For Secondary Education Majors)</b>	<b>3 s.h.</b>
<i>Prerequisite: 0803.201</i>	
This course helps students integrate reading methods and strategies into subject matter instruction. Students learn a basic format for lesson planning. They acquire an understanding of the reading process and examine a variety of instructional techniques for assessing pupil abilities, selecting suitable materials, and fostering language, comprehension, and study skills needed for mastery of academic subject.	
<b>0830.320 Language Development, Emergent Literacy, and Reading in Young Children</b>	<b>4 s.h.</b>
<i>Prerequisite: 0823.221, Co-requisite: 0823.320</i>	
Students will develop an understanding of five phases of Literacy: Awareness and Exploration; Experimental Reading and Writing; Early Reading and Writing; Transitional Reading and Writing; Independent and Productive 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, the students will be able to recognize the impact of cultural, linguistic, and other diversities that have the potential to affect engagement in literacy learning by identifying and utilizing strategies for inclusion. In addition, students will also identify strategies to expose children to other languages through the use of functional phrases for social interaction and inclusiveness. This course will require frequent field visits in a variety of settings.	

**0830.322 Teaching Reading to Children with Special Needs - Writing Intensive** **3 s.h.***Prerequisite: 0830.301 or 0830.319 or 0830.310*

This course prepares students to teach reading/writing to learners with special needs. Major topics include adaptation of formal and informal assessment procedures as well as instructional techniques and materials. There is an emphasis on professional writing through ongoing technical writing, analytic writing and reflective writing.

**0830.347 Phonics and Spelling Instruction** **3 s.h.***Prerequisite: 0830.301 or 0830.310 or 0830.319 or 0801.200*

This course prepares prospective teachers to integrate phonics and spelling instruction strategically into the language integrated approach to teaching reading. Major topics include the development of phonic abilities in young children, terminology of phonics, spelling instruction, syllabication, the treatment of phonics in commercial materials, and communicating with parents about phonics.

**0830.350 Using Children's Literature in the Reading/Writing Classroom** **3 s.h.***Prerequisite: 0830.301 or 0830.310 or 0830.319 or 0801.200*

This course prepares prospective teachers to use the integrated language arts approach to teaching reading. In the integrated language arts approach, the primary materials of the instructional program consist of various types of children's literature. Thematic units are used to organize the literature and to plan instructional activities which help pupils develop their reading, writing, speaking and listening abilities.

**0830.351 Differentiated Literacy Instruction** **2 s.h.**

*Prerequisite: Admission to the certification in elementary education or the certification program in special education or the program in reading*

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.

**0830.421 School Reading Problems-Writing Intensive** **3 s.h.***Prerequisite: 0830.322 or 0830.347 or 0830.350 or permission of the department*

In this course, students learn to teach reading to disabled readers. They use tests and observations to locate reading levels. Students are required to use on-going diagnostic teaching techniques to plan, teach and adjust instruction according to the needs of disabled readers. Process writing is used throughout the course to develop students' professional writing. Field experience is required.

**0830.451 Supervised Clinical Practice in Reading** **3 s.h.**

*Prerequisite: Matriculation into the Program, 0830.421, 0801.300, 0830.350 or 0830.347 or 0830.322, permission of advisor required*

Students in this course apply diagnostic teaching procedures when tutoring remedial readers. They select materials and instructional techniques according to the specific needs of the tutees. Emphasis is placed on integrating the language arts. Tutees will be guided to read literature, school texts and periodicals; students in this course will teach tutees to use word processing to compose sentences, essays, reports and stories. Students will learn how to encourage a lifetime interest in reading.

**0830.495 Workshop in Reading** **1-3 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.

## **0831 Art Education**

### **0831.350 Elementary Art Methods: Teaching and Learning Art A**

**3 s.h.**

*Prerequisite: 0802.270, 0802.282, Admission to the Subject Matter Certification program in Art*

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.

### **0831.360 Secondary Art Methods: Teaching and Learning Art B**

**3 s.h.**

*Prerequisite: 0802.270, 0802.282, Admission to the Subject Matter Certification in Art*

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.

### **0831.450 Clinical Practice in Art Education**

**10 s.h.**

*Co-requisites: 0803.451 and 0833.420*

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.

### **0831.451 Clinical Practice Seminar in Art Education**

**1 s.h.**

*Co-requisite: 0833.420, 0831.450*

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.

## **0832 Music Education**

### **0832.218 Vocal Pedagogy**

**3 s.h.**

*Prerequisite: 1004.103*

An analysis is made of the various methods used in the teaching of voice.

### **0832.219 Piano Pedagogy**

**1 s.h.**

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.

**0832.329 Teaching/Learning Music A: Elementary General Music** **3 s.h.***Prerequisite: 1004.103, 1004.104, 1004.216, 1004.217, 1006.214, 1006.215*

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.

**0832.330 Teaching/Learning Music B: Vocal Methods and Techniques** **3 s.h.***Prerequisite: 0832.329*

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.

**0832.331 Teaching/Learning Music B: Instrumental Methods and Techniques** **3 s.h.***Prerequisite: 0832.329*

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.

**0832.412 Clinical Practice Seminar in Music** **1 s.h.***Co-requisites: 0832.411 and 0803.420*

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.

**0832.440 Marching Band Techniques** **3 s.h.**

Fundamentals of precision marching and marching maneuvers along with new materials and techniques for the half-time show

**0832 Music Education - Sec Ed****0832.411 Clinical Practice in Music** **10 s.h.***Prerequisite: 0821.401, Co-requisites: 0832.412, 0803.350*

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.

**0833 Mathematics Education****0833.201 Computers for Teachers** **3 s.h.**

This course surveys the history of computers, how they work and the range of present applications. The course explores the economic, psychological and social significance of computers in education. Students will study the types of computer related learning which are in use or under development. Students will use, analyze and see software, hardware and multimedia systems demonstrated.

**0833.330 Teaching/Learning A: Mathematics** **3 s.h.**

*Prerequisite: Admission to Certification Program in Subject Matter Education- Mathematics, Co-requisites: 0803.332 and 0808.316*

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

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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.

### **0833.331 Teaching/Learning B: Mathematics**

**3 s.h.**

*Prerequisite: 0833.330, 0803.330, Co-requisite with 0803.332*

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.

### **0833.420 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 N-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.

### **0833.451 Pedagogy III: Practicum in Secondary Mathematics Teaching**

**5 s.h.**

*Prerequisite: 0803.201, 0821.401*

*(Check with department for semester offered)*

The five-credit, junior-level course is designed for students majoring in mathematics and planning a career as a secondary school mathematics teacher. It includes both campus and public school experience dealing with a wide variety of topics including mathematics pedagogy, short and long range planning, classroom management, and the development of instructional and evaluative techniques specific to teaching mathematics. This course introduces students to the nature and operation of the modern secondary school, including the responsibilities of the secondary teacher, the guidance counselor, school administrators and other professional specialists. Students learn to organize instructional materials into meaningful units and daily lessons in their areas of specialization.

### **0833.502 Processes & Principles of School Mathematics**

**3 s.h.**

In this course, designed for certified teachers of secondary school mathematics, students will expand their pedagogical repertoires to include the mathematical processes of communicating, representing, making connections, problem solving, and reasoning and proving. The principles of curriculum, teaching, technology, equity, learning, and assessment will provide a framework for the study of the processes and students' current practice. These processes and principles will be studied entirely within the context of school mathematics content.

## **0834 Science Education**

### **0834.330 Teaching/Learning A: Science**

**3 s.h.**

*Prerequisite: Admission to Certification Program in Subject-Matter Education - Science, Co-requisite with 0803.330, 0808.316*

This second in a sequence of two three-credit courses, in conjunction with the matching field experience/practicum, will spiral through the course content areas using the AAAS theme of science for all Americans as the guiding goal for K-12 science and the National and New Jersey Science Standards as the means to reach specific objectives for our prospective teachers and their future students. This course concentrates on content and process defined by New Jersey Science Standards for grades K-8.

**0834.331 Teaching/Learning B: Science****3 s.h.***(Prerequisite: 0834.330, C or better in 0803.330, Co-requisites 0808.332)*

This second in a sequence of two three-credit courses, in conjunction with the matching field experience/practicum, will spiral through the course content areas using the AAAS theme of science for all Americans as the guiding goal for K-12 science and the National and New Jersey Science Standards as the means to reach specific objectives for our prospective teachers and their future students. This course concentrates on content and process defined by New Jersey Science Standards for grades 9-12.

**0835 Exercise Science****0835.103 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.

**0835.105 Introduction to Athletic Training****2 s.h.**

This course is designed as an initial experience for students considering a career in athletic training. Students will be introduced to the five domains of athletic training: 1) Prevention and Care of Athletic Injuries; 2) Recognition, Evaluation and Immediate Care of Athletic Injuries; 3) Rehabilitation and Reconditioning of Athletic Injuries; 4) Health Care Administration; and 5) Professional Development and Responsibility. An observational field experience under the supervision of a NATA certified athletic trainer is required.

**0835.107 Physical Education - Fitness/Sport****1-4 s.h.***(Variable credit course, one to four hours, one credit for each activity offering)*

Students select an activity based on their personal needs and interests. The focus is on lifetime activities to include swimming, jogging, walking, aerobic dance, social dance, orienteering, tennis and golf. Students with special limitations who may be uncomfortable in a large group setting can work on individualized programs.

**0835.109 Fitness and Adventure Activities****3 s.h.***(Prerequisite or Co-requisites: 0835.135, 0835.105)*

This course is designed to provide students with insight in the application of fitness and adventure activities. Students will develop skill in designing fitness programs for individuals with differing needs and abilities. In addition, fundamentals of experiential and adventure education will be highlighted along with an overview of cooperative education and active learning. Students will become aware of a variety of methods for incorporating this discipline into the physical education curriculum.

**0835.135 Introduction to Teaching Health and Physical Education****2 s.h.**

This course is required for students majoring in Health and Exercise Science with the specialization of health and physical education teacher certification. The focus of this course is on: historical, philosophical, psychological, sociological, and biomechanical foundations; the interrelationship of health, physical education, sports, dance, recreation, and fitness within the profession; motor learning and motor development; common language used within the varied areas; and alternative solutions to present-day issues/problems.

**0835.204 Women in Sport****3 s.h.**

Students will examine women's participation in sport from historical, cultural, psychological, physical, legal and societal perspectives. Emphasis will be placed on the role of the female in sport in American society.

<b>0835.205 Teaching Concepts of Team Sports</b>	<b>3 s.h.</b>
<i>Prerequisite: 0835.286, 0835.270</i>	
This course provides an opportunity for students to learn the characteristics of a skilled performance in a variety of team sports. Students will be able to describe and demonstrate the application of appropriate rules, strategies, and sportsmanship behaviors of each team sport.	
<b>0835.218 Prevention and Care of Athletic Injuries</b>	<b>3 s.h.</b>
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.	
<b>0835.219 Pathology and Evaluation of Athletic Injuries I</b>	<b>4 s.h.</b>
<i>Prerequisite: 0410.210, 0410.212, 0835.218</i>	
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. Current management philosophies will be addressed.	
<b>0835.220 Pathology and Evaluation of Athletic Injuries II</b>	<b>4 s.h.</b>
<i>Prerequisite: 0835.219</i>	
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 and common illnesses. Structural, functional and surface anatomy will be reviewed. Current management philosophies will be addressed.	
<b>0835.228 Rhythmic Activities and Forms</b>	<b>3 s.h.</b>
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.	
<b>0835.231 Teaching Concepts of Individual &amp; Dual Sports</b>	<b>3 s.h.</b>
<i>Prerequisite: 0835.286, 0835.270</i>	
This course is designed to prepare health and exercise science teacher certification students to successfully teach specific sport activities in the school setting. Students are exposed to rules, strategies, organizations and skill development in individual and dual sports. Emphasis is placed on the teaching and learning process throughout the various grade levels.	
<b>0835.235 Safety, First Aid and Prevention</b>	<b>3 s.h.</b>
This course is a lecture/laboratory experience that meets standards established by the American Red Cross. The content of the course addresses the theories behind the safety and prevention of common injuries and illnesses. The course focuses on first aid principles, along with the knowledge and skill development that can be of value to one's self as well as others. Successful completion of this course leads to certification in CPR as well as Standard First Aid and Personal Safety.	
<b>0835.241 Structure and Function of the Human Body I</b>	<b>3 s.h.</b>
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.	
<b>0835.242 Structure and Function of the Human Body II</b>	<b>3 s.h.</b>
<i>Prerequisite: 0835.241</i>	
This course continues the study of the human body begun in 0835.241. It investigates the urinary, endocrine, reproductive, digestive and integumentary systems.	

**0835.270 Movement Fundamentals and Motor Learning****3 s.h.***Prerequisite: 0835.135*

This course is designed to be an introductory course that includes the study of locomotor and non-locomotor patterns, manipulative, rhythmical movement patterns, and skill development as they relate to motor learning. These fundamental principles will be analyzed in terms of teaching elementary school children. Throughout this course the concept of providing challenging yet success assured learning experiences for skill development and the enhancement of self esteem will be consistently reinforced.

**0835.271 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.

**0835.286 Foundations of Teaching Health and Physical Education****3 s.h.***Prerequisite: 0835.131*

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.

**0835.334 Advanced Emergency Care****3 s.h.**

*Prerequisite: ARC Community First Aid and Safety certificate or AHD CPR certificate or Permission of Instructor*

This course is designed as a public/community service course. Public school nurses, emergency and volunteer personnel, athletic trainers, and others are trained to become American Red Cross certified instructors in CPR for the Professional Rescuer, and Community First Aid and Safety. Student teaching is completed under the guidance of an experienced ARC instructor trainer. Students gain experience and develop insight and skill in the art of teaching American Red Cross courses.

**0835.336 Elementary School Physical Education Activities****3 s.h.**

*Prerequisite: 0835.286; Co-requisites: 0835.342, 0835.392, 0837.453*

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.

**0835.337 Introduction to Allied Health Professions****3 s.h.**

*Prerequisite: 0835.241 or 0410.210*

This course introduces students to a variety of allied health professions including, but not limited to, physical therapy, occupational therapy, respiratory therapy, speech-language pathology, cardiac rehabilitation, athletic training, nursing, dietician/nutritionist, physician assistant. Entry level educational requirements as well as state professional regulations, licensure/certification, scope of practice and projected job opportunities are included. Health care delivery system is introduced including Medicare, Medicaid, health maintenance organizations and traditional (indemnity) plans. Commonly occurring medical problems, patient evaluation and types of treatment used in selected physical dysfunctions are also included.

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### **0835.338 Clinical Experience in Athletic Training I** 1 s.h.

*Prerequisite: Acceptance into the athletic training specialization, 0835.220*

This clinical experience is designed to orient the first semester student athletic trainer to the clinical portion of the athletic training curriculum. The student will perform the duties and responsibilities of a student athletic trainer in Rowan's athletic training facility or in an affiliated clinical setting under the supervision of a NATA certified athletic trainer as assigned by the director of athletic training education. The student will complete 300 clinical hours and attend a weekly classroom session. Specific skill competencies will be addressed. The student will be guided in the development of critical thinking skills.

### **0835.339 Clinical Experience in Athletic Training II** 1 s.h.

*Prerequisite: 0835.338*

This clinical experience is designed to continue to prepare the second semester student athletic trainer to work with athletic teams in the clinical setting. The student will perform the duties and responsibilities of a student athletic trainer in Rowan's athletic training facility or an affiliated clinical setting under the supervision of a NATA certified athletic trainer as assigned by the director of athletic training education. The student will complete 300 clinical hours and attend a weekly classroom session which will address specific competencies. The student will be guided in the development of critical thinking skills.

### **0835.340 Clinical Experience in Athletic Training III** 1 s.h.

*Prerequisite: 0835.339*

This clinical experience is designed for the senior student athletic trainer who will complete 250 clinical hours in Rowan's athletic training facility or an affiliated clinical setting under the supervision of a NATA certified athletic trainer as assigned by the director of athletic training education. The student will attend a weekly classroom session which will address specific competencies and will be expected to demonstrate the development of critical thinking skills.

### **0835.341 Clinical Experience in Athletic Training IV** 1 s.h.

*Prerequisite: 0835.340*

This clinical experience is designed for the senior student athletic trainer who will complete 250 clinical hours in Rowan's athletic training facility or an affiliated clinical setting under the supervision of a NATA certified athletic trainer as assigned by the director of athletic training education.

### **0835.342 K-12 Physical Education Curriculum & Instruction** 3 s.h.

*Prerequisite: 0835.286; Co-requisites 0835.336, 0835.392, 0837.453*

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).

### **0835.343 Kinesiology** 3 s.h.

*Prerequisite: 0835.241, 0835.242*

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.

### **0835.344 Exercise Physiology (without lab)** 3 s.h.

*Prerequisite: 0835.241, 0835.242*

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.

**0835.345 Exercise Physiology (with lab)****4 s.h.***Prerequisite: 0835.241, 0835.242; for Pre-Athletic Training -0410.210, 0410.212*

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.

**0835.352 Technology and Assessment in Health and Exercise Science****3 s.h.***Prerequisite: 0835.135, 0701.100 or equivalent*

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.

**0835.368 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.

**0835.373 Advanced Lifesaving/Cardiopulmonary Resuscitation****3 s.h.***Prerequisite: advanced swimming abilities*

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.

**0835.374 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.

**0835.377 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.

**0835.378 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.

**0835.380 Officiating Competitive Swimming & Diving****3 s.h.**

This course prepares students to take the N.J. Swimming Officials State exam. It is also useful for students who have an interest in coaching competitive swimming and diving. This course may not be offered annually.

**0835.392 Field experience in Teaching Health and Physical Education****1 s.h.***Prerequisite: 0835.286, Corequisites: 0835.336, 0837.453, 0835.342*

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.

## COURSE DESCRIPTIONS

### **0835.401 Exercise Prescription**

**3 s.h.**

*Prerequisite: 0835.241, 0835.242, 0835.344*

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.

### **0835.405 Organization & Administration in Athletic Training**

**3 s.h.**

*Prerequisite: Acceptance into the athletic training specialization, 0835.339*

This lecture/laboratory course is designed to meet the entry level competencies for the student athletic trainer 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.

### **0835.412 Exercise for Special Populations**

**3 s.h.**

*Prerequisite: 0835.344 or 0835.345, 0835.401*

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.

### **0835.430 Senior Seminar in Athletic Training**

**1 s.h.**

*Prerequisite: 0835.340*

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.

### **0835.452 Adapted Physical Education**

**3 s.h.**

*Prerequisite: 0835.135*

This is an introductory course designed to provide 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.

### **0835.456 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.

### **0835.460 Clinical Practice in Health and Physical Education, Elementary**

**5 s.h.**

*Prerequisite: Permission from Advisor*

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.

**0835.461 Clinical Practice in Health and Physical Education, Secondary** **5 s.h.***Prerequisite: Permission from Advisor*

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.

**0835.465 Clinical Seminar in Health and Physical Education** **2 s.h.***Co-requisite with 0835.460, 0835.461*

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.

**0835.473 Water Safety Instructor** **3 s.h.***Prerequisite: minimum age of 17, current American National Red Cross Advanced Life Saving Certificate*

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.

**0835.475 Therapeutic Modalities for Athletic Training** **4 s.h.***Prerequisite: 0835.478 or permission of instructor and program advisor*

This course focuses on the cognitive, affective and psychomotor competencies involved in developing appropriate therapeutic modality programs for the injured athlete. 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.

**0835.478 Therapeutic Exercises in Athletic Training** **4 s.h.***Prerequisite: 0835.337*

This course covers the cognitive, affective and psychomotor competencies involved in developing appropriate rehabilitation exercise protocols for the injured athlete. 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.

**0835.479 Pharmacology and General Medicine in Athletic Training** **3 s.h.**

This junior 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 three (3) semester hour course.

**0835.480 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.

**0837 Health Education****0837.170 Stress Management** **3 s.h.**

This course focuses on the nature of stress and the impact it has on a person's health. The student will study the relationship of the physiological, psychological and social factors which contribute to one's general stress balance and develop life skills to combat the negative impact of stress.

## COURSE DESCRIPTIONS

<b>0837.180 Psychological Aspects of Health</b>	<b>3 s.h.</b>
The course deals mostly with assisting students in meeting mental health problems in today's society. It emphasizes modification in behavior, effects of chemicals on behavior, the psychology of sex, the psychology of accident prevention and the psychological problems of aging. This course may not be offered annually.	
<b>0837.192 Contemporary Health I</b>	<b>3 s.h.</b>
This is the first in a series of two general knowledge based survey courses which provide students with knowledge of current health issues which occur in the human life cycle. Topics which will be addressed are family life and human sexuality, personal growth and development, mental and emotional health, aging and death and dying.	
<b>0837.193 Contemporary Health II</b>	<b>3 s.h.</b>
This is the second in a series of two general knowledge based survey courses which provide students with knowledge of current health issues which occur in the human lifecycle. Topics which will be addressed are alcohol, tobacco and other drugs, personal health, chronic and infectious diseases, environmental health and consumerism.	
<b>0837.209 Health Education for Elementary School Teachers</b>	<b>1 s.h.</b>
Elementary education majors will be prepared to conduct thorough and effective health education in grades K-6. This course focuses on the nature and philosophy of health education and comprehensive school health programs as well as the teacher's role in curriculum, instruction and evaluation as they impact student health-related behavior.	
<b>0837.210 Consumer Health Decisions</b>	<b>3 s.h.</b>
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.	
<b>0837.310 Foundations of Health Promotion and Fitness Management</b>	<b>3 s.h.</b>
<i>Co-Requisite for 0837.350</i>	
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.	
<b>0837.329 Laboratory in Personal Training Techniques</b>	<b>1 s.h.</b>
<i>Co-requisite 0835.401</i>	
This course prepares the student, with an exercise science background, to successfully work as a personal fitness trainer for individual clients. During this highly experiential learning experience, students will learn to combine their exercise science knowledge, counseling and educational skills, and fitness techniques with clients in the campus exercise facility. Upon successfully completing this course, students will be prepared to qualify for national certification in personal training.	
<b>0837.340 Administration of Health Promotion and Fitness Programs</b>	<b>3 s.h.</b>
<i>Prerequisite: 0837.170, 0837.350, 1306.200</i>	
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.	

**0837.350 Health Behavior****3 s.h.***Prerequisite: 0837.310*

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.

**0837.390 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.

**0837.430 Practicum in Health Promotion and Fitness Management****3 s.h.***Prerequisite: should be taken just prior to internship and after 0837.340*

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.

**0837.453 Health Program Planning****3 s.h.***Prerequisite: 0835.286 Co-requisite: 0835.342, 0835.336, 0835.392*

This course develops an understanding of the competencies essential for the planning of health programs. Though community and work-site program are discussed, compared and contrasted, school health education programs are the major focus of this course. Students are given opportunities to develop sensitivity for the importance of integrating health education in various settings and to address the NJ Core Curriculum Content Standards for Comprehensive Health and Physical Education (Standards 2.1 through 2.4). Actual lesson planning and teaching experiences are required. Students are encouraged to take the junior field experience course simultaneously in order to correlate experiences, observe well, and apply concepts learned.

**0837.483 Senior Field Experience in Health Promotion and Fitness Management****3-6 s.h.***Prerequisite: 0837.430*

Students complete a supervised field experience enabling them to gain knowledge of a wide range of clients and the functioning of a health, sport, or fitness facility or program in the community. Placements are made in agencies selected on the basis of student's needs, interests, and program specializations.

**0837.485 Evaluation Procedures in Health****3 s.h.**

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.

**0837.486 Problems and Issues in Health****3 s.h.**

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.

**0837.490 Alcohol Education Workshop****2 s.h.**

Offered with the cooperation of the State Department of Health, this course prepares teachers of health, school nurses, guidance personnel and others. The course concentrates on psychological, sociological and physiological problems involved in the use of beverage alcohol and materials and techniques useful in alcohol education programs. This course may not be offered annually.

**0838 Business Education****0838.330 Teaching/Learning A: Business****3 s.h.***Co-requisites: 0803.330, 0808.316*

This first in a sequence of two three-credit courses is designed for students majoring in business and planning careers as K-12 business teacher. Teacher candidates will learn to organize instructional materials into standards-based business units and daily lessons focused on scaffolding learning experiences in career development, communication, computation, personal finance and information technology. 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 business pedagogy and praxis, learner diversity, lesson and unit planning, and national and state standards for business education.

**0838.331 Teaching/Learning B: Business****3 s.h.***Prerequisite: 0838.330, 0803.330, Co-requisite with 0803.332, 0803.350*

This second in a sequence of two three-credit courses is designed for students majoring in business and planning careers as K-12 business teachers. Teacher candidates will learn to organize instructional materials into standards-based units and daily lessons focused on scaffolding learning experiences in accounting, business law, economics, entrepreneurship, international business, management, and marketing. 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 business pedagogy and praxis, learner diversity, lesson and unit planning, and national and state standards for business education.

**0839 Technology - Art****0839.330 General Photography****3 s.h.**

This course uses the 35mm camera, black and white film and paper to study the aesthetics and technology of photography. Students expose and develop film, make prints and participate in critiques and photo displays. It emphasizes photography as an art form as well as a technical endeavor through study of composition, materials and equipment. Students provide their own camera and supplies. This course is open to all students and may be used as a general education Art course.

**0839.347 Advanced Photography****3 s.h.***Prerequisite: 0839.330*

This is an applied course where students are expected to advance their skill and expertise in still photography. It emphasizes photography as an art form as well as a commercial endeavor. While work is primarily with black and white film, the course introduces color slide and print processing. It covers studio lighting and large format cameras. A camera and supplies are provided by the students (large format cameras and studio lights are available)

**0839.386 Electronic Publishing Systems****3 s.h.**

Electronic publishing provides students with practical technical expertise and experiences in the managing and use of the technologies, machines and tools associated with desktop publishing, laser printing, scanning, phototypesetting, electronic printing, and other pre-press graphic reproduction systems.

**0850 English/Language Arts Education****0850.330 Teaching/Learning A: English Language Arts****3 s.h.***Co-requisites: 0803.330 and 0808.316*

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.

**0850.331 Teaching/Learning B: English Language Arts****3 s.h.***Prerequisite: 0850.330, 0803.330, Co-requisite with 0803.332, 0803.350*

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.

**0851 Foreign Language Education****0851.330 Teaching/Learning A: Foreign Languages****3 s.h.***Prerequisite: Matriculation in the K-12 subject matter specialization program*

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 at the novice level of proficiency at any grade level. 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, content selection and organization, and contemporary instructional strategies. The course includes public school based experiences in both elementary and secondary school levels.

**0851.331 Teaching/Learning B: Foreign Language****3 s.h.***Prerequisite: Matriculation in the K-12 subject matter specialization program*

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 at the intermediate level of proficiency. 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, content selection and organization, and contemporary instructional strategies. The course includes public school based experiences in the secondary school.

**0852 Social Studies Education****0852.330 Teaching/Learning A: Social Studies****3 s.h.***Co-requisites: 0803.330, 0808.316*

This first in a sequence of two three-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.

**0852.331 Teaching/Learning B: Social Studies** **3 s.h.***Co-requisite with 0803.332, 0803.350*

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.

**0892 School Nursing****0892.430 Methods and Materials in Health Teaching for School Nurses** **3 s.h.***Prerequisite: matriculation in the School Nursing Program*

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.

**0892.433 Health Assessment for School Nurses** **3 s.h.***Prerequisite: matriculation in School Nursing Program*

This course assists nurses in developing and refining skills in health assessment of school-age children. It emphasizes developing a data base, interviewing, assessing the physical status of the school-age child, and formulating health care plans for the school setting.

**0892.437 School and Community Nursing** **3 s.h.***Prerequisite: matriculation in School Nursing Program*

This course consists of a study of the historical background and current trends in public health nursing. It includes consideration of the community as client, legislation influencing school and community health services, the role of health agencies, and current health problems and their effect on individuals, families, schools and communities. It emphasizes methods and means of health referrals and follow-up.

**0892.444 Practicum in School Nursing** **5 s.h.***Prerequisite: 0892.466, matriculation in School Nursing Program*

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 one semester prior.

**0892.445 Internship in Health Teaching for School Nursing** **5 s.h.***Prerequisite: 0892.430, 0892.444, matriculation in School Nursing Program, taken concurrently with 0892.448*

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 0892.448. Pre-registration consultation with program advisor is required one semester prior.

**0892.448 Health Teaching Methods for School Nursing Seminar****2 s.h.***Prerequisites: 0892.430, 0892.466, taken concurrently with 0892.445*

This senior level seminar is to be taken with Internship in Health Teaching for School Nursing (0892.445). 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.

**0892.466 School Health Services****3 s.h.***Prerequisite: matriculation in the School Nursing Program*

This course discusses the administration, organization and legal aspects of school health services. It also explores the functions of school health personnel, emphasizing the activities of the school nurse. Discussions will relate to such areas as health assessment, the health care requirements for school age children, and children with on-going health care needs. Teaching: An Introduction to the Profession or School Law or Educational Policy should be taken prior or concurrently.

**0901 Engineering, General****0901.101 Freshman Engineering Clinic I****2 s.h.***Prerequisite: Concurrent enrollment in 1906.105, 1701.130*

Introduction to the practice of engineering through application problems drawn from engineering disciplines chosen to amplify work drawn from supporting courses. Survey of technical communication formats, analytic tools, computer-based tools, and other topics. Introduction to design; engineering ethics; teamwork.

**0901.102 Freshman Engineering Clinic II****2 s.h.***Co-requisites: 1701.131 and 1902.200, 0901.101, 1906.105*

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.

**0901.201 Sophomore Engineering Clinic I****4 s.h.***Prerequisite: 0901.102, 1501.111, 1902.200, 0704.103, co-requisite: 1701.235*

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.

**0901.202 Sophomore Engineering Clinic II****4 s.h.***Prerequisite: 0901.201*

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.

**0901.271 Statics****2 s.h.***Prerequisite: 1902.200, 1701.131*

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.

## COURSE DESCRIPTIONS

<b>0901.272 Solid Mechanics</b>	<b>2 s.h.</b>
<i>Prerequisite: 0901.271</i>	
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.	
<b>0901.281 Material Science</b>	<b>2 s.h.</b>
<i>Prerequisite: 1906.105, 1902.200</i>	
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.	
<b>0901.282 Manufacturing Processes</b>	<b>2 s.h.</b>
<i>Prerequisite: 1906.105, 0901.281, 1902.200</i>	
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.	
<b>0901.291 Dynamics</b>	<b>2 s.h.</b>
<i>Prerequisite: 1902.200, 0901.271</i>	
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.	
<b>0901.301 Junior Engineering Clinic I</b>	<b>2 s.h.</b>
<i>Prerequisite: 0901.202</i>	
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.	
<b>0901.302 Junior Engineering Clinic II</b>	<b>2 s.h.</b>
<i>Prerequisite: 0901.301</i>	
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.	
<b>0901.341 Fluid Mechanics I</b>	<b>2 s.h.</b>
<i>Prerequisite: 1902.200, 1701.236</i>	
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.	

**0901.391 Independent Study in Engineering****1-6 s.h.***Prerequisite: permission of instructor*

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.

**0901.401 Senior Engineering Clinic I****2 s.h.***Prerequisite: 0901.302 or permission of instructor*

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.

**0901.402 Senior Engineering Clinic II – WI****2 s.h.***Prerequisite: 0901.401 or permission of instructor*

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.

**0901.410 Introduction to Finite Element Analysis****3 s.h.***Prerequisite: 1701.236, 0901.272*

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.

**0901.411 Introduction to Engineering Optimization****3 s.h.***Prerequisite: 1701.236 or equivalent*

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.

**0901.453 Introduction to Analytic Dynamics****3 s.h.***Prerequisite: 0910.201, 0901.291, 1701.236 or equivalent*

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.

**0906 Chemical Engineering****0906.201 Principles of Chemical Processes I****2 s.h.***Prerequisite: 1906.105, 1902.200, 1701.131*

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 will be integrated throughout the course.

**0906.302 Principles of Chemical Processes II****2 s.h.***Prerequisite: 0906.201, 1906.106*

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 will be integrated throughout course.

**0906.309 Process Fluid Transport****2 s.h.***Prerequisite: 0901.341, 0906.302*

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.

**0906.310 Chemical Engineering Thermodynamics****3 s.h.***Prerequisite: 0906.302, 1908.400*

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.

**0906.311 Heat Transfer Processes****2 s.h.***Prerequisite: 0901.341, 1701.236*

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.

**0906.312 Equilibrium Staged Operations****2 s.h.***Prerequisite: 0906.302, 0901.341, 1701.236*

This course gives students an introduction to equilibrium-staged separations. Students will learn the theory and principles of equilibrium staged calculations applied to: distillation, extraction, absorption, and stripping columns. A major focus of the course is distillation systems; batch and continuous for binary and multicomponent systems. Demonstrations and laboratories will be integrated throughout the course.

**0906.314 Separation Processes****4 s.h.***Prerequisite: 0906.309, 0906.312*

This course describes the 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. The course presents several rate-controlled separation processes and their relevant theory, design and applications. These processes include sorption processes of adsorption, chromatography and ion exchange; and membrane processes of reverse osmosis, ultra/microfiltration and gas permeation. Demonstrations and laboratories will be integrated throughout the course.

**0906.316 Chemical Reaction Engineering****4 s.h.***Prerequisite: 0906.309, 0906.311, 0906.312, 1907.200*

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.

**0906.401 Chemical Process Component Design****4 s.h.***Prerequisite: 0906.316, 0906.314, 0906.310*

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.

**0906.402 Transport Phenomena****3 s.h.***Prerequisite: 0906.316, 0906.314*

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.

**0906.403 Unit Operations Lab I****2 s.h.***Prerequisite: 0906.310, 0906.314, 0906.316*

This course addresses the fundamental operation and applications of various chemical engineering unit processes, typically called "unit operations." Students will engage in pilot-scale process experimentation on various systems and relate theory and phenomenological principles to performance of a realistic industrial operation. Typical processes covered include: process filtration, tubular flow reactors, liquid-liquid extraction, fluidized beds, continuous distillation, crystallization, leaching, reverse osmosis, gas permeation, absorption and stripping, and spray dryers.

**0906.404 Unit Operations Laboratory II****2 s.h.***Prerequisite: 0906.403*

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.

**0906.405 Process Dynamics and Control****3 s.h.***Prerequisite: 0906.401, 0906.402*

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.

**0906.406 Chemical Plant Design****3 s.h.***Prerequisite: 0906.401, 0906.402*

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.

## COURSE DESCRIPTIONS

<b>0906.441 Process Safety</b>	<b>3 s.h.</b>
<i>Prerequisite: 0901.341, 1906.100 or 1906.105, 0910.311 or 0906.310</i>	
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.	
<b>0906.442 Fluid Flow in Processing and Manufacturing</b>	<b>3 s.h.</b>
<i>Prerequisite: 0901.341</i>	
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.	
<b>0906.462 Bioprocess Engineering</b>	<b>3 s.h.</b>
<i>Prerequisite: 1906.100 or 1906.105, 1701.130</i>	
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.	
<b>0906.463 Green Engineering of Chemical Processes</b>	<b>3 s.h.</b>
<i>Prerequisite: 0906.314, 0906.316</i>	
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.	
<b>0906.464 Advanced Separation Technology</b>	<b>3 s.h.</b>
<i>Prerequisite: 0906.314</i>	
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 prevaporation. Commercial system design parameters and laboratory demonstrations will be included. An overview of other novel separation processes will be done.	
<b>0906.465 Advanced Design of Reactors</b>	<b>3 s.h.</b>
<i>Prerequisite: 0906.316</i>	
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.	
<b>0906.466 Polymer Processing</b>	<b>3 s.h.</b>
<i>Prerequisite: 0901.281, 0906.310</i>	
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.	

**0906.468 Principles of Electrochemical Engineering****3 s.h.***Prerequisite: 1701.131, 1906.100 or 1906.105*

This course will focus on the fundamental principles of process electrochemistry. Basic principles of thermodynamics, kinetics and mass transfer as applied to electrochemical systems will be presented. Modeling of electrochemical systems and application of electrochemical principles to corroding systems will be conducted by the students. Engineering case studies of commercial applications in energy conversion and storage and electrolytic processes will be presented.

**0906.470 Principles of Air Pollution Control****3 s.h.***Prerequisite: 1906.100 or 1906.105, 1701.131*

This course introduces students to air pollution control theory. Students design air pollution control processes and specify equipment related to the control of particulate, gaseous and toxic air emissions. The chemistry required for pollution control process design is presented. The environmental impacts due both to controlling and not controlling emissions are considered. Students design control equipment, specify and troubleshoot control systems and predict the impacts for each major type of control system.

**0906.472 Principles of Biomedical Processes****3 s.h.***Prerequisite: 1906.100 or 1906.105, 1701.131*

This course introduces students to chemical engineering fundamentals applied to biomedical systems. Students analyze and design biomedical processes. The basic biochemistry and physiology required for understanding of biomedical systems is presented. Basic principles of mass transfer, heat transfer, fluid flow, and chemical reaction are used to analyze or design drug delivery systems, pharmacokinetic models, the circulatory system, transport across cell membranes, and human and artificial organs. Laboratory experiments and demonstrations will be integrated throughout the course.

**0906.474 Fundamentals of Particle Technology****3 s.h.***Prerequisite: 1906.100 or 1906.105, 1701.131*

This course introduces students to the chemical engineering functions of particle technology. Students analyze and design chemical industry processes involving particles. The basic chemistry of particle synthesis and manufacturing is presented. Principles of mass and heat transfer, fluid flow and chemical reaction kinetics are used to analyze a wide range of industrial processes involving particles. Processes involving fluidization, pneumatic conveying, multi-phase mixing and catalysis will be discussed. Laboratory experiments and demonstrations will be integrated throughout the course.

**0906.476 Principles of Bioseparation Processes****3 s.h.***Prerequisite: 0906.314*

This course will focus on the fundamental principles of bioseparation processes. The characteristics of bioseparations will be presented as applied to downstream processing in the pharmaceutical/biotechnology and related industries. Theory and design of filtration, microfiltration, centrifugation, cell disruption, extraction, adsorption, chromatography, precipitation, ultrafiltration, crystallization, and drying will be presented as applied to biosystems. Commercial design considerations, such as sanitary design/sterilization, water quality, solvent recovery, waste disposal and biosafety will be reviewed.

**0906.477 Fundamentals of Engineering Process Analysis and Experimental Design****3 s.h.***Prerequisite: Senior Standing*

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.

**0906.479 Industrial Process Pathways** 3 s.h.*Prerequisite: 1907.200, 0906.316*

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.

**0906.480 Project Optimization in Engineering** 3 s.h.*Prerequisite: 0901.302*

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.

**0906.481 Advanced Process Analysis** 3 s.h.*Prerequisite: Senior Standing*

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.

**0906.482 Principles of Food Engineering** 3 s.h.*Prerequisite: 1906.100 or 1906.105, 1701.131*

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.

**0906.483 Principles of Engineering Exercise Physiology** 4 s.h.*Prerequisite: 1906.100 or 1906.105, 1701.236*

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.

**0906.484 Fundamentals of Controlled Release** 3 s.h.*Prerequisite: 1906.100 or 1906.105, 1701.131*

Controlled release systems are designed to provide delivery of an agent at a pre-determined rate for an extended period of time. 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.

**0906.486 Membrane Processes** 3 s.h.*Prerequisite: 1906.105 or 1906.100, 1701.131*

Principles of membrane processes: reverse osmosis, ultrafiltration, microfiltration, electrodialysis, pre-vaporation, 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.

**0906.490 Special Topics in Chemical Engineering: Topic** **3 s.h.***Prerequisite: 1906.100 or 1906.105, 1701.131*

This course presents chemical engineering topics related to recent developments in industrial practice or research. May be repeated.

**0908 Civil Engineering****0908.203 Surveying and Engineering Graphics** **3 s.h.***Prerequisite: 1701.130 or permission of instructor*

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.

**0908.301 Civil Engineering Materials** **2 s.h.***Prerequisite: 0901.281*

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.

**0908.305 Civil Engineering Systems** **2 s.h.***Prerequisite: 2204.102, 0908.301*

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.

**0908.311 Environmental Engineering I** **3 s.h.***Prerequisite: 1907.300, must be taken with Corequisite 0901.341*

Topics in principles of environmental engineering, including ecosystems, water and wastewater treatment and design, and sludge/residuals management.

**0908.312 Environmental Engineering II** **3 s.h.***Prerequisite: 0908.311 or permission of instructor*

Topics in solid and hazardous waste and air pollution engineering, including regulations, fundamentals, evaluation, management, prevention, treatment and disposal.

**0908.342 Water Resources Engineering** **3 s.h.***Prerequisite: 0901.341*

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, ground-water 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.

**0908.351 Geotechnical Engineering** **3 s.h.***Prerequisite: 0901.341, 0908.301, 0901.272*

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.

## COURSE DESCRIPTIONS

### **0908.361 Transportation Engineering** 3 s.h.

*Prerequisite:* 2204.102

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.

### **0908.382 Structural Analysis and Design** 3 s.h.

*Prerequisite:* 0901.271, 0901.272

This course deals with the analysis of simply-supported and continuous structures using slope-deflection, conjugate-beam, and virtual work. The design of axially loaded steel members is integrated with the analysis topics. The force method of analysis is applied to truss structures.

### **0908.383 Analysis and Design of Steel Frames** 3 s.h.

*Prerequisite:* 0908.382

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.

### **0908.404 Engineering Estimating for Seniors** 3 s.h.

*Prerequisite:* 2204.102 or permission of instructor

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, and steel buildings and bridges. The course includes appropriate computer applications.

### **0908.412 Environmental Treatment Process Principles** 3 s.h.

*Prerequisite:* Senior standing or permission of instructor

Topics in Fundamentals of Physiochemical Processes in Environmental Engineering such as Absorption, Coagulation/Flocculation, Filtration, Sedimentation, Disinfection, Ion Exchange, Chemical Oxidation, Corrosion and Membranes.

### **0908.422 Site Remediation Engineering Principles** 3 s.h.

*Prerequisite:* Senior standing or permission of instructor

Topics in site remediation engineering, including 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.

### **0908.431 Solid and Hazardous Waste Management** 3 s.h.

*Prerequisite:* 1907.300

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.

### **0908.432 Pollutant Fate and Transport Principles** 3 s.h.

*Prerequisite:* Senior standing or permission of instructor

Topics include 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.

**0908.433 Principles of Integrated Solid Waste Management** **3 s.h.***Prerequisite: Senior standing or permission of instructor*

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.

**0908.443 Advanced Water Resources Engineering for Seniors** **3 s.h.***Prerequisite: 0908.342 or equivalent*

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.

**0908.444 Principles of Hydraulic Design** **3 s.h.***Prerequisite: 0908.342 or permission of instructor*

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.

**0908.445 Principles of Environmental Fluid Mechanics** **3 s.h.***Prerequisite: 0908.342 or permission of instructor*

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.

**0908.452 Foundation Engineering for Seniors** **3 s.h.***Prerequisite: 0908.351 or equivalent*

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.

**0908.453 Earth Retaining Systems for Seniors** **3 s.h.***Prerequisite: 0908.351 or equivalent*

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.

**0908.462 Advanced Transportation Engineering for Seniors** **3 s.h.***Prerequisite: 0908.461 or equivalent*

The fundamental theme of the course is the study of advanced topics in transportation engineering including advanced highway engineering and advanced mass transit systems. These advanced topics include the impact and interaction of sociological, economic, geographic, and environmental factors on transportation systems. The course includes appropriate field measurements and computer applications.

## COURSE DESCRIPTIONS

<b>0908.463 Transportation Planning, Demand, and Data Analysis</b>	<b>3 s.h.</b>
<i>Prerequisite: Senior standing or permission of instructor</i>	
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.	
<b>0908.464 Elements of Transportation Engineering of Seniors</b>	<b>3 s.h.</b>
<i>Prerequisite: 0908.361 or permission of instructor</i>	
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.	
<b>0908.465 Pavement Analysis and Evaluation</b>	<b>3 s.h.</b>
<i>Prerequisite: 0908.361 or permission of instructor</i>	
The fundamental theme of the course is the engineering study of pavement response.	
<b>0908.473 Advanced Structural Analysis for Seniors</b>	<b>3 s.h.</b>
<i>Prerequisite: 0908.383 or equivalent, 0908.281, 0908.382</i>	
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.	
<b>0908.481 Reinforced Concrete Design</b>	<b>3 s.h.</b>
<i>Prerequisite: 0901.271, 0901.272</i>	
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.	
<b>0908.484 Prestressed Concrete for Seniors</b>	<b>3 s.h.</b>
<i>Prerequisite: 0908.281 or permission of instructor</i>	
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 pre-stressed 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.	
<b>0908.485 Advanced Reinforced Concrete for Seniors</b>	<b>3 s.h.</b>
<i>Prerequisite: 0908.281 or permission of instructor</i>	
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.	
<b>0908.486 Bridge Engineering for Seniors</b>	<b>3 s.h.</b>
<i>Prerequisite: 0908.383 or equivalent, 0908.281, 0908.382</i>	
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.	

**0908.487 Design of Masonry and Wood Structures****3 s.h.***Prerequisite: 0901.272, 0908.382*

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.

**0908.490 Civil Engineering Design Practice****1 s.h.***Prerequisite: 0908.305*

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.

**0908.491 Civil Engineering Design Project I****2 s.h.***Prerequisite: 0908.305*

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.

**0908.492 Civil Engineering Design Project II****2 s.h.***Prerequisite: 0908.491*

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.

**0909 Electrical and Computer Engineering****0909.201 Network I****2 s.h.***Prerequisite: concurrent enrollment in 1701.235, 0704.103, 1701.131, 1902.200*

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.

**0909.202 Network II****2 s.h.**

*Prerequisite: 1701.235, 1902.201, concurrent enrollment in 1701.236, must attain a C or better in 0909.201*  
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.

**0909.241 Digital I****2 s.h.***Prerequisite: 0909.201, 0704.103*

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.

<b>0909.242 Digital II: Microprocessors</b>	<b>2 s.h.</b>
<i>Prerequisite: must attain a C or better in 0909.241</i>	
The second course in digital systems covering principles of computer systems design including hardware and software. The course also treats applications of computer design.	
<b>0909.301 Engineering Electromagnetics I</b>	<b>2 s.h.</b>
<i>Prerequisite: 1701.236, 1902.200, must attain a C or better in 0909.202</i>	
The first course in engineering electromagnetics covering applications of electrostatics, magnetostatics and quasi-statics in contemporary electrical engineering practice. The course also covers numerical modeling of electromagnetic systems using appropriate software.	
<b>0909.302 Engineering Electromagnetics II</b>	<b>2 s.h.</b>
<i>Prerequisite: 0909.301, 1701.236, must attain a C or better in 0909.202</i>	
The second course in engineering electromagnetics covering applications of electromagnetic wave propagation in contemporary electrical engineering practice. The course also covers numerical modeling of electromagnetic systems using appropriate software.	
<b>0909.311 Electronics I</b>	<b>2 s.h.</b>
<i>Prerequisite: must attain a C or better in 0909.201</i>	
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.	
<b>0909.312 Electronics II</b>	<b>3 s.h.</b>
<i>Prerequisite: must attain a C or better in 0909.311</i>	
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.	
<b>0909.321 Systems and Control I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1701.236, 0909.241, must attain a C or better in 0909.202</i>	
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.	
<b>0909.322 Systems and Controls II</b>	<b>3 s.h.</b>
<i>Prerequisite: 0909.321</i>	
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.	

**0909.331 Electrical Communication Systems****4 s.h.***Prerequisite: 1701.236, must attain a C or better in 0909.202*

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.

**0909.351 Digital Signal Processing****3 s.h.***Prerequisite: 0909.321*

This is a junior level undergraduate course that covers the fundamentals of digital signals, systems, transforms, and filters. Systems concepts taught include linearity, time-invariance, stability, causality, difference equation representation, impulse response and convolution. The issues of frequency response, conversion between analog and digital signals and sampling are covered. The z-transform is introduced. Design methods and structures of digital filters are discussed. Complex variables are covered. The student is exposed to software and hardware designs.

**0909.400 Electrical Engineering Clinic Consultant****1 s.h.***Prerequisite: 0901.202*

This course provides an opportunity for consulting work in support of a multidisciplinary clinic project. Work will be managed by the discipline manager.

**0909.401 High Speed Interconnects****3 s.h.***Prerequisite: 0909.301, 0909.302*

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.

**0909.402 Topics in Electrical & Computer Engineering****1-3 s.h.***Prerequisite: permission of instructor*

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.

**0909.403 Sustainable Design in Engineering****3 s.h.***Prerequisite: 0804.103*

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.

**0909.404 Principles of Biomedical Systems and Devices****3 s.h.***Prerequisite: 0909.311, 0909.321*

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.

**0909.405 Product Engineering** 3 s.h.*Prerequisite: Senior Standing, 0901.302*

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.

**0909.406 Forensic Engineering and Product Liability** 3 s.h.*Prerequisite: Senior Standing, 0901.302*

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.

**0909.407 Interaction Design** 3 s.h.*Prerequisite: Senior Standing, 0901.302*

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.

**0909.408 Power System Engineering** 3 s.h.*Prerequisite: 0909.202, 0909.302*

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.

**0909.411 Modern Solid State Devices** 3 s.h.*Prerequisite: 1902.200, 0909.201, 0909.311*

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.

**0909.412 Electronic Packaging** 3 s.h.*Prerequisite: 1902.200, 0909.201, 0909.311*

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.

**0909.413 Principles of Nondestructive Evaluation** 3 s.h.*Prerequisite: Concurrent enrollment in 0901.401 or 0901.402 or permission of instructor*

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.

**0909.431 Optical Fiber Communications****3 s.h.***Prerequisite: 0909.311, 0909.301, 0909.302*

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.

**0909.432 Wireless Communications****3 s.h.***Prerequisite: 0909.311, 0909.301, 0909.302, 0909.331*

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.

**0909.443 Computer Architecture I: Introduction****2 s.h.***Prerequisite: 0909.242*

The first course in computer architecture covers principles of computer systems design focusing on hardware elements in bus-based architectures. It also introduces techniques of large-scale digital system design.

**0909.444 Computer Architecture II: Specialized Systems****2 s.h.***Prerequisite: 0909.443*

The second course in computer architecture treats architecture elements of special-purpose digital systems. Use of macro functions is stressed.

**0909.451 Architectures for Digital Signal Processing****3 s.h.***Prerequisite: 0909.351*

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.

**0909.452 Introduction to Digital Image Processing****3 s.h.***Prerequisite: 0909.351 or permission of instructor*

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.

**0909.453 Adaptive Filters****3 s.h.***Prerequisite: 0909.351*

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.

**0909.454 Introduction to Artificial Neural Networks****3 s.h.***Prerequisite: 1701.242 or 1701.210 or permission of instructor*

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.

<b>0909.455 Theory and Applications of Pattern Recognition</b>	<b>3 s.h.</b>
<i>Prerequisite: 0909.351, 0909.331 or permission of the instructor</i>	
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.	
<b>0909.471 Instrumentation</b>	<b>3 s.h.</b>
<i>Prerequisite: 0909.311, 0909.201 or permission of instructor</i>	
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.	
<b>0909.481 Backplane Design</b>	<b>3 s.h.</b>
<i>Prerequisite: Digital hardware background that includes VHDL, permission of instructor</i>	
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.	
<b>0909.483 Digital Design w/VHDL</b>	<b>3 s.h.</b>
<i>Prerequisite: 0909.242</i>	
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.	
<b>0909.484 Mixed Signal Technology</b>	<b>3 s.h.</b>
<i>Prerequisite: 0909.202, 0909.242, 0909.312</i>	
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.	
<b>0909.498 Seminar: Engineering Frontiers</b>	<b>1 s.h.</b>
<i>Prerequisite: Concurrent enrollment in 0909.402</i>	
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.	
<b>0910 Mechanical Engineering</b>	
<b>0910.201 Vibrations</b>	<b>2 s.h.</b>
<i>Prerequisite: 0901.271, 1902.200, 0901.291</i>	
The course deals with vibration of single and multi-degree of freedom systems. First free vibration of single degree of freedom spring mass system is formulated and developed. Concepts of damping, and forced vibrations, and dynamic balancing are then introduced. Two degree of freedom systems are then considered to introduce the matrix system of equations. Multi-degree of freedom systems and modeling of continuous systems are presented. Fourier analysis for general forms of forced vibrations are discussed. Experimental experience will be integrated throughout the course.	

**0910.241 Machine Design****2 s.h.***Prerequisite: 0901.292, 0901.272*

This course introduces the students to machine design. It deals with the design and selection of machine elements such as shafts, couplings, bearings, gears, springs, clutches, brakes, screws, and fasteners. Laboratory experience will include computer simulation and analysis. Design experience will be synergistically integrated throughout the curriculum and culminate in a design project.

**0910.311 Engineering Thermodynamics I****2 s.h.***Prerequisite: 1701.242 or equivalent, 1906.100, 1902.200*

The first and second laws of thermodynamics and their applications to energy transformations during various processes are introduced. Property relations are developed for pure simple compressible substances and ideal gases. Closed systems and open systems are analyzed using first and second law analyses. Steam power cycles are analyzed to determine the performance parameters and energy efficiencies.

**0910.312 Engineering Thermodynamics II****2 s.h.***Prerequisite: 0906.202, 0910.311*

This course emphasizes application of the first and second laws of thermodynamics to a variety of systems, including gas power systems, refrigeration systems, and combustion systems. In addition, advanced thermodynamics topics are covered, including Maxwell relations, energy analysis, chemical equilibrium and phase equilibrium.

**0910.313 Fluid Mechanics II****2 s.h.***Prerequisite: 0901.341*

This course emphasizes application of the conservation equations of mass, momentum and energy to problems involving boundary layers, incompressible external flow over immersed bodies, one-dimensional steady-state supersonic flow and turbomachinery. Specific applications include determination of drag and lift for flow over immersed bodies, supersonic nozzle flow, supersonic flow with friction and normal shock waves.

**0910.341 Mechanical Design and Synthesis****4 s.h.***Prerequisite: 0910.241*

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 synergistically integrated throughout the curriculum and culminate in a design project.

**0910.342 Quality & Reliability in Design and Manufacture****3 s.h.***Prerequisite: 1701.236*

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.

**0910.343 Mechanical System Dynamics and Control****3 s.h.***Prerequisite: 0910.201*

This course introduces the students to system modeling, analysis and control. The first part of the course deals with physical system dynamics. The second part of the course focuses on the design of control systems. Laboratory experience will include computer simulation and analysis of mechanical systems. Students will model a system with realistic specifications and develop a control system.

**0910.401 Introduction to Computer Integrated Manufacturing and Automation****3 s.h.***Prerequisite: 0901.282 or equivalent*

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.

<b>0910.403 Emerging Topics in Mechanical Engineering</b>	<b>2 s.h.</b>
<i>Prerequisite: 0906.311 or equivalent</i>	
This course will introduce emerging technologies and designs for microscale machinery, microscale manufacturing, and microscale heat transport. Topics will include a review of limits and assumptions of macroscale heat transfer, microscale energy transport mechanisms, microscale manufacturing techniques, thermal phenomena in semiconductor devices, micro heat pipes, micromanufactured thermal and mechanical sensors, and a brief introduction to nanomachines.	
<b>0910.405 Special Topics in Mechanical Engineering</b>	<b>3 s.h.</b>
<i>Prerequisite: Permission of Instructor</i>	
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.	
<b>0910.411 Introduction to Combustion</b>	<b>3 s.h.</b>
<i>Prerequisite: 0910.312 or equivalent</i>	
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.	
<b>0910.412 Introduction to Rocket Propulsion</b>	<b>3 s.h.</b>
<i>Prerequisite: 0910.312, 0910.313 or equivalent</i>	
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.	
<b>0910.413 Advanced Heat and Mass Transfer</b>	<b>3 s.h.</b>
<i>Prerequisite: 0910.312, 0906.311 or equivalent</i>	
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.	
<b>0910.414 Introduction to Energy Conversion Systems</b>	<b>3 s.h.</b>
<i>Prerequisite: 0910.312, 0901.341</i>	
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.	
<b>0910.421 Introduction to Gas Dynamics</b>	<b>3 s.h.</b>
<i>Prerequisite: 0910.313, 0910.312</i>	
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.	

**0910.422 Introduction to Computational Fluid Dynamics****3 s.h.***Prerequisite: 0910.312, 0910.313*

This course serves as an overview of the techniques used to solve problems in fluid mechanics on computers and describes in detail those most often used in practice. Included are advanced techniques in computational fluid dynamics, like direct and large-eddy simulation of turbulence, multigrid methods, parallel computing, moving grids, structured, block-structures and unstructured boundary-fitted grids, and free surface flows. The issues of numerical accuracy, estimation and reduction of numerical errors are treated in detail with many examples.

**0910.441 Advanced Mechanism Design for Undergraduates****3 s.h.***Prerequisite: 0910.341 or consent of instructor*

This course presents an in-depth 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.

**0910.442 Mechatronics****3 s.h.***Prerequisite: 0901.302*

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.

**0910.443 Design for X****3 s.h.***Prerequisite: 0901.302*

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.

**0910.444 Introduction to Automotive Engineering****3 s.h.***Prerequisite: 0901.291, 0910.241, 0910.341, 0910.312, 0910.313, 0906.311*

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.

**0910.451 Introduction to the Mechanics of Continuous Media****3 s.h.***Prerequisite: 0901.272, 1701.335 or equivalent*

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.

**0910.452 Introduction to Structural Acoustics****3 s.h.***Prerequisite: 0910.201*

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.

**0910.453 Introduction to Analytic Dynamics****3 s.h.***Prerequisite: 1701.236 or equivalent, 0901.291, 0910.201*

This course is an introduction to three-dimensional motion of particles and rigid bodies. Students will be introduced to modern analytical rigid body dynamics equation formulation and computational solution techniques applied to mechanical systems. Students will formulate Newton/Euler and Lagrangian equations for applications to engineering systems involving vehicle dynamics, spin stabilization, rotating imbalance, and vibration isolation.

**0910.453 Introduction to the Elastic Stability of Structures****3 s.h.***Prerequisite: 0901.291, 0901.272*

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.

**0910.470 Introduction to Biomechanics****3 s.h.***Prerequisite: 0901.291*

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.

**0910.471 Introduction to Biofluids****3 s.h.***Prerequisite: 0901.341*

The goal of this course is to present an introduction to fundamental concepts of fluid mechanics and mass transport that are involved in mammalian cell function. Special attention is given to the vascular circulation system and problems that commonly occur therein. This course will include a small laboratory component and will involve independent learning about the state-of-the-art in biofluids research.

**0910.472 Introduction to Biomaterials****3 s.h.***Prerequisite: 0901.281*

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.

**0910.475 Introduction to Crash Safety Engineering****3 s.h.***Prerequisite: 0901.291*

This course presents an introduction to the design and analysis of crashworthy cars and light trucks. The course will encompass three major focus areas: the crash response of (1) the vehicle structure, (2) the occupant, and (3) the occupant restraints. Topics will include the analysis of crash tests, vehicle crash kinematics, vehicle modeling, the biomechanics of impact injury, occupant modeling, and airbag design.

**1001 Fine Art, General****1001.450 Art Internship****3-6 s.h.**

This course provides practical experience to develop an in-depth career oriented involvement and understanding of the students' area of specialization. Both personnel from the agency and the major area advisor arrange the internship experience with cooperative supervision and evaluation. Students must first apply with their advisors in the art department for the internship, and then register for this course. (Variable credit)

**1002 Art****1002.100 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.

**1002.105 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.

**1002.110 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.

**1002.125 Perspective Drawing for Artists****1.5 s.h.**

This course covers basic principles of perspective drawing. Fundamental theory and practice enhance students' concepts of drawing. Students develop a portfolio of drawings demonstrating the various skills and ideas learned.

**1002.200 Expressive Drawing****3 s.h.**

*Prerequisite: 1002.100 or permission of instructor*

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.

**1002.207 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.

**1002.211 Intermediate Drawing IV****3 s.h.**

*Prerequisite: 1002.200*

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.

**1002.220 Introduction to Painting I****3 s.h.**

*Prerequisite: 1002.222 or permission of instructor*

This course introduces students to basic concepts, techniques, materials and procedures of painting.

**1002.222 Studio Core Portfolio Review**

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.

## COURSE DESCRIPTIONS

<b>1002.225 Intermediate Painting II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.220, 1002.222 or permission of instructor</i>	
These studios continue the study of painting, emphasizing the expressive and physical qualities of media, pictorial composition and color theory.	
<b>1002.240 Introduction to Sculpture I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission of instructor</i>	
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, wood-working and modeling.	
<b>1002.245 Intermediate Figure Sculpture</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission of instructor</i>	
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 mold-making and casting are an integral part of the course.	
<b>1002.251 Intermediate Sculpture II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission of instructor</i>	
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.	
<b>1002.260 Introduction to Printmaking I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission of instructor</i>	
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.	
<b>1002.261 Intermediate Printmaking II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.260 or permission of instructor</i>	
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.	
<b>1002.300 Workshop in Art</b>	<b>3 s.h.</b>
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.	
<b>1002.301 Intermediate Sculpture III</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222, 1002.251 or permission of instructor</i>	
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.	
<b>1002.302 Intermediate Sculpture IV</b>	<b>3 s.h.</b>
<i>Prerequisite: all previous Sculpture courses or permission of instructor</i>	
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.	
<b>1002.303 Glass-Working I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission from instructor</i>	
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.	

**1002.304 Glass-Working II****3 s.h.***Prerequisite: 1002.303 or permission of instructor*

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.

**1002.306 Glass-Working III****3 s.h.***Prerequisite: 1002.304 or permission of instructor*

This intermediate studio course will continue to develop the techniques of kiln casting glass and slumping and fusing glass. Students will work on projects designated by the instructor that utilize the above techniques and begin to develop self-direction, individual style and expression.

**1002.307 Glass-Working IV****3 s.h.**

This intermediate studio course will utilize the techniques of Patte-de-verre and lamp-working. Students will work on projects designated by the instructor. At the end of this course students will be experienced in glass-working techniques available at Rowan University, and will be prepared to pursue advanced glass-working.

**1002.310 Advanced Drawing V****3 s.h.***Prerequisite: 1002.211 or permission of instructor*

Students will develop and solve independent problems investigating the extent, nature, and intention of drawing as a distinct medium of expression.

**1002.311 Advanced Drawing VI****3 s.h.***Prerequisite: 1002.310*

Students will develop and solve independent problems investigating the extent, nature, and intention of drawing as a distinct medium of expression.

**1002.315 Intermediate Painting III****3 s.h.**

These studios continue the study of painting, emphasizing the expressive and physical qualities of media, pictorial composition and color theory.

**1002.317 Intermediate Printmaking III****3 s.h.**

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.

**1002.320 Intermediate Painting IV****3 s.h.***Prerequisite: all previous Painting courses or permission of instructor*

These studios continue the study of painting, emphasizing the expressive and physical qualities of media, pictorial composition and color theory.

**1002.321 Intermediate Printmaking IV****3 s.h.***Prerequisite: all previous Printmaking courses or permission of instructor*

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.

**1002.324 Advanced Printmaking V****3 s.h.**

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.

**1002.325 Intermediate Figure/Life Painting and Drawing****3 s.h.***Prerequisite: 1002.220 and 1002.222 or permission of instructor*

Students paint from life and costumed figures to strengthen their understanding of figure articulation, action, proportion and anatomical construction.

## COURSE DESCRIPTIONS

<b>1002.327 Aquarelle (Intermediate Level)</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission of instructor</i>	
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.	
<b>1002.360 Advanced Printmaking VI</b>	<b>3 s.h.</b>
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.	
<b>1002.370 Selected Topics in Glass-Working</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission of instructor</i>	
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.	
<b>1002.400 Independent Study</b>	<b>3-6 s.h.</b>
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.	
<b>1002.401 Advanced Sculpture V</b>	<b>3 s.h.</b>
These studios explore advanced problems in sculpture. Students work in consultation with the instructor.	
<b>1002.402 Advanced Sculpture VI</b>	<b>3 s.h.</b>
These studios explore advanced problems in sculpture. Students work in consultation with the instructor.	
<b>1002.403 Glass-Working V</b>	<b>3 s.h.</b>
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. At the end of this course students will be experienced in glass-making techniques available at Rowan University, and will be prepared to pursue advanced glass working.	
<b>1002.404 Glass-Working VI</b>	<b>3 s.h.</b>
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.	
<b>1002.411 Advanced Sculpture VII</b>	<b>3 s.h.</b>
These studios explore advanced problems in sculpture. Students work in consultation with the instructor.	
<b>1002.412 Advanced Sculpture VIII</b>	<b>3 s.h.</b>
<i>Prerequisite: all previous Sculpture courses or permission of instructor</i>	
These studios explore advanced problems in sculpture. Students work in consultation with the instructor.	
<b>1002.414 Advanced Painting V</b>	<b>3 s.h.</b>
These studios provide advanced study emphasizing individual conception of the painted image, composition and design in both representational or abstract painting.	
<b>1002.416 Advanced Painting VI</b>	<b>3 s.h.</b>
These studios provide advanced study emphasizing individual conception of the painted image, composition and design in both representational or abstract painting.	
<b>1002.420 Advanced Painting VII</b>	<b>3 s.h.</b>
These studios provide advanced study emphasizing individual conception of the painted image, composition and design in both representational or abstract painting.	

**1002.425 Advanced Painting VIII****3 s.h.***Prerequisite: all previous Painting courses or permission of instructor*

These studios provide advanced study emphasizing individual conception of the painted image, composition and design in both representational or abstract painting.

**1002.430 Advanced Printmaking VII****3 s.h.**

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

**1002.431 Advanced Printmaking VIII****3 s.h.***Prerequisite: all previous Printmaking courses or permission of instructor*

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

**1003 Art History****1003.100 Introduction to Visual Art****3 s.h.**

This course introduces an understanding and appreciation of painting, sculpture, architecture and utilitarian and industrial design in contemporary cultures. Students work with techniques and processes that reinforce and dramatize appreciation and visit museums and galleries.

**1003.103 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.

**1003.104 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.

**1003.130 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.

**1003.205 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.

**1003.210 History of American Art****3 s.h.**

This course provides students with an overview of the development of painting, sculpture and architecture in America from colonial times to the 20th century.

**1003.220 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.

**1003.250 Concepts in Art: Survey****3 s.h.**

This course presents an overview of selected topics in the areas of psychology, sociology, culture, aesthetics and criticism. It permits students to acquaint themselves with the significance of art concepts relating to each area. The course includes field trips to museums and galleries.

## COURSE DESCRIPTIONS

### **1003.252 Concepts in Art: Criticism - WI**

**3 s.h.**

*Prerequisite: 1501.112*

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.

### **1003.253 Concepts in Art: Sociological**

**3 s.h.**

This course provides interested students with an understanding of the ideas that bear upon artist's and art's relationship to society and culture. It stresses the role of the fine arts in 20th Century life and investigates the economics and politics of art in its institutionalization, production and distribution as well as the function of folk and popular arts in society, and how they differ from the fine arts.

### **1003.401 Survey of Asian Art**

**3 s.h.**

*Prerequisite: 1003.103, 1003.104, 1003.205*

Introduction to the artistic traditions of China, Japan, India, Korea and Southeast Asia. Emphasis on historical, religious and social context. Focus on the arts of Buddhism, Hinduism, and other religious and cultural influences on the visual arts.

### **1003.420 Art Since 1945**

**3 s.h.**

*Prerequisite: 1003.220 or permission of instructor*

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.

### **1003.425 Special Problems in Art History**

**3 s.h.**

*Prerequisite: 1002.103, 1002.104, 1002.205, permission of instructor*

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.

## **1004 Music - Performing,Composition,Theory**

### **1004.050 Student Recitals**

Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.

## **1004 Music, Applied Music**

### **1004.121 Professional Applied-Instrumental I**

**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. These courses must be taken in sequence: 1004.122; 1004.221; 1004.222; 1004.321; 1004.322; 1004.421; 1004.422. This course of study is only available as a degree requirement for the B.M. in Performance.

### **1004.122 Professional Applied-Instrumental II**

**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. These courses must be taken in sequence: 1004.122; 1004.221; 1004.222; 1004.321; 1004.322; 1004.421; 1004.422. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.123 Professional Applied-Voice I** **4 s.h.**

An intensive study of one's major instrument or voice 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 vocal majors. These courses must be taken in sequence: 1004.123; 1004.124; 1004.223; 1004.224; 1004.323; 1004.324; 1004.423; 1004.424. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.124 Professional Applied-Voice II** **4 s.h.**

An intensive study of one's major instrument or voice 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 vocal majors. These courses must be taken in sequence: 1004.123; 1004.124; 1004.223; 1004.224; 1004.323; 1004.324; 1004.423; 1004.424. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.221 Professional Applied-Instrumental III** **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. These courses must be taken in sequence: 1004.122; 1004.221; 1004.222; 1004.321; 1004.322; 1004.421; 1004.422. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.222 Professional Applied-Instrumental IV** **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. These courses must be taken in sequence: 1004.122; 1004.221; 1004.222; 1004.321; 1004.322; 1004.421; 1004.422. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.223 Professional Applied-Voice III** **4 s.h.**

An intensive study of one's major instrument or voice 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 vocal majors. These courses must be taken in sequence: 1004.123; 1004.124; 1004.223; 1004.224; 1004.323; 1004.324; 1004.423; 1004.424. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.224 Professional Applied-Voice IV** **4 s.h.**

An intensive study of one's major instrument or voice 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 vocal majors. These courses must be taken in sequence: 1004.123; 1004.124; 1004.223; 1004.224; 1004.323; 1004.324; 1004.423; 1004.424. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.321 Professional Applied-Instrumental V** **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. These courses must be taken in sequence: 1004.122; 1004.221; 1004.222; 1004.321; 1004.322; 1004.421; 1004.422. This course of study is only available as a degree requirement for the B.M. in Performance.

## COURSE DESCRIPTIONS

**1004.322 Professional Applied-Instrumental VI** **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. These courses must be taken in sequence: 1004.122; 1004.221; 1004.222; 1004.321; 1004.322; 1004.421; 1004.422. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.323 Professional Applied-Voice V** **4 s.h.**  
An intensive study of one's major instrument or voice 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 vocal majors. These courses must be taken in sequence: 1004.123; 1004.124; 1004.223; 1004.224; 1004.323; 1004.324; 1004.423; 1004.424. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.324 Professional Applied-Voice VI** **4 s.h.**  
An intensive study of one's major instrument or voice 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 vocal majors. These courses must be taken in sequence: 1004.123; 1004.124; 1004.223; 1004.224; 1004.323; 1004.324; 1004.423; 1004.424. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.421 Professional Applied-Instrumental VII** **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. These courses must be taken in sequence: 1004.122; 1004.221; 1004.222; 1004.321; 1004.322; 1004.421; 1004.422. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.422 Professional Applied-Instrumental VIII** **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. These courses must be taken in sequence: 1004.122; 1004.221; 1004.222; 1004.321; 1004.322; 1004.421; 1004.422. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.423 Professional Applied-Voice VII** **4 s.h.**  
An intensive study of one's major instrument or voice 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 vocal majors. These courses must be taken in sequence: 1004.123; 1004.124; 1004.223; 1004.224; 1004.323; 1004.324; 1004.423; 1004.424. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004.424 Professional Applied-Voice VIII** **4 s.h.**  
An intensive study of one's major instrument or voice 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 vocal majors. These courses must be taken in sequence: 1004.123; 1004.124; 1004.223; 1004.224; 1004.323; 1004.324; 1004.423; 1004.424. This course of study is only available as a degree requirement for the B.M. in Performance.

**1004 Music, Composition****1004.125 Music Composition I****3 s.h.**

A detailed study of compositional devices emphasizing the twentieth century is made. Compositions are written for available media and performed in class.

**1004.126 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.

**1004.225 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.

**1004.226 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.

**1004.325 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.

**1004.326 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.

**1004.329 Junior Recital****P/NC**

*Prerequisite: students must be concurrently enrolled in or have successfully completed: 1004.322 or 1004.234 or 1097.405 or 1097.308*

The Junior Recital is the recital performance culminating six semesters of applied lessons for performance majors.

**1004.425 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.

**1004.426 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.

**1004.430 Senior Recital****3 s.h.**

*Prerequisite: students must be concurrently enrolled in or have successfully completed: 1097.406 or 1097.408 or 1004.422 or 1004.424*

The Senior Recital is the recital performance culminating eight semesters of applied lessons for majors in the Bachelor of Music programs.

**1004 Music, Ensemble****1004.127 Ensemble I****0-1 s.h.**

Variable credit is given to those students who participate in approved ensembles (College Band, String Ensemble, Choral Union, Chamber Choir, Orchestra, Concert Choir, Contemporary Music Ensemble, Percussion Ensemble, Guitar Ensemble, Opera Workshop, Lab Band, Pep Band, Chamber Orchestra, Symphonic Wind Ensemble).

## COURSE DESCRIPTIONS

- 1004.128 Ensemble II** **0-1 s.h.**  
Variable credit is given to those students who participate in approved ensembles (College Band, String Ensemble, Choral Union, Chamber Choir, Orchestra, Concert Choir, Contemporary Music Ensemble, Percussion Ensemble, Guitar Ensemble, Opera Workshop, Lab Band, Pep Band, Chamber Orchestra, Symphonic Wind Ensemble).
- 1004.202 Language through Vocal Repertoire (Italian)** **1 s.h.**  
Phonetics and exact spellings are taught with examples of vocal literature. This course stresses special pronunciation problems for the singer with an Anglo-Saxon language background.
- 1004.203 Language through Vocal Repertoire (French)** **1 s.h.**  
Phonetics and exact spellings are taught with examples of vocal literature. This course stresses special pronunciation problems for the singer with an Anglo-Saxon language background.
- 1004.204 Language through Vocal Repertoire (German)** **1 s.h.**  
Phonetics and exact spellings are taught with examples of vocal literature. This course stresses special pronunciation problems for the singer with an Anglo-Saxon language background.
- 1004.227 Ensemble III** **0-1 s.h.**  
Variable credit is given to those students who participate in approved ensembles (College Band, String Ensemble, Choral Union, Chamber Choir, Orchestra, Concert Choir, Contemporary Music Ensemble, Percussion Ensemble, Guitar Ensemble, Opera Workshop, Lab Band, Pep Band, Chamber Orchestra, Symphonic Wind Ensemble).
- 1004.228 Ensemble IV** **0-1 s.h.**  
Variable credit is given to those students who participate in approved ensembles (College Band, String Ensemble, Choral Union, Chamber Choir, Orchestra, Concert Choir, Contemporary Music Ensemble, Percussion Ensemble, Guitar Ensemble, Opera Workshop, Lab Band, Pep Band, Chamber Orchestra, Symphonic Wind Ensemble).
- 1004.309 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: 1004.309, 1004.310, 1004.409, and 1004.410.
- 1004.310 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: 1004.309, 1004.310, 1004.409, and 1004.410.
- 1004.315 Piano Accompanying I** **1 s.h.**  
This course gives majors in piano and in vocal pedagogy experience and practice in an accompanying role. Students in this course are required to do much performing. This course may not be offered annually.
- 1004.327 Ensemble V** **0-1 s.h.**  
Variable credit is given to those students who participate in approved ensembles (College Band, String Ensemble, Choral Union, Chamber Choir, Orchestra, Concert Choir, Contemporary Music Ensemble, Percussion Ensemble, Guitar Ensemble, Opera Workshop, Lab Band, Pep Band, Chamber Orchestra, Symphonic Wind Ensemble).
- 1004.328 Ensemble VI** **0-1 s.h.**  
Variable credit is given to those students who participate in approved ensembles (College Band, String Ensemble, Choral Union, Chamber Choir, Orchestra, Concert Choir, Contemporary Music Ensemble, Percussion Ensemble, Guitar Ensemble, Opera Workshop, Lab Band, Pep Band, Chamber Orchestra, Symphonic Wind Ensemble).

**1004.333 Stage Band Rehearsal Techniques****3 s.h.**

For music majors only. Required in the Jazz Studies Program and may be elected by others. The course examines the history interpretation and conducting necessities for rehearsing stage bands. Score reading, conducting with recordings and conducting an ensemble are taught.

**1004.350 Computer Technology and Music I****3 s.h.**

This course is a short survey of literature and styles of electronic music plus an introduction to the equipment and technical possibilities of the electronics studio and the technique of electronic tape composition. This course may not be offered annually.

**1004.351 Computer Technology and Music II****3 s.h.**

*Prerequisite: 1004.350*

A continuation of Computer Technology and Music I. This course may not be offered annually.

**1004.404 Orchestration****2 s.h.**

*Prerequisite: 1004.130, 1004.131, 1004.240, 1004.241*

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.

**1004.409 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: 1004.309, 1004.310, 1004.409, and 1004.410.

**1004.410 Chamber Music IV**

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: 1004.309, 1004.310, 1004.409, and 1004.410.

**1004.427 Ensemble VII****0-1 s.h.**

Variable credit is given to those students who participate in approved ensembles (College Band, String Ensemble, Choral Union, Chamber Choir, Orchestra, Concert Choir, Contemporary Music Ensemble, Percussion Ensemble, Guitar Ensemble, Opera Workshop, Lab Band, Pep Band, Chamber Orchestra, Symphonic Wind Ensemble).

**1004.428 Ensemble VIII****0-1 s.h.**

Variable credit is given to those students who participate in approved ensembles (College Band, String Ensemble, Choral Union, Chamber Choir, Orchestra, Concert Choir, Contemporary Music Ensemble, Percussion Ensemble, Guitar Ensemble, Opera Workshop, Lab Band, Pep Band, Chamber Orchestra, Symphonic Wind Ensemble).

**1004.450 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.

**1004.455 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.

**1004 Music, Jazz Studies****1004.105 Jazz Improvisation I/Applied****1 or 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.

## COURSE DESCRIPTIONS

<b>1004.106 Jazz Improvisation II/Applied</b>	<b>1 or 2 s.h.</b>
<i>Prerequisite: 1004.105</i>	
Students learn to go beyond the blues scale and form with an introduction to "turnarounds" and minor chords and scales. Performance of standard tunes is stressed along with a thorough understanding of early jazz performers' styles and periods.	
<b>1004.207 Jazz Improvisation III/Applied</b>	<b>1 or 2 s.h.</b>
<i>Prerequisite: 1004.106</i>	
This course is an extension of Improvisation I and II with strong emphasis on technique. Learning how to apply appropriate jazz melodic patterns to chords chosen to support an existing melody is stressed, and increased listening and awareness of the great bebop and cool jazz artists are required.	
<b>1004.208 Jazz Improvisation IV/Applied</b>	<b>1 or 2 s.h.</b>
<i>Prerequisite: 1004.207</i>	
This course presents the bass, guitar and piano, stressing the role of harmonic voicing and chord choices in improvisation. An awareness of these three instruments as supporting elements to improvisation in a theoretical sense is the primary thrust of the course.	
<b>1004.229 Secondary Applied Piano (Jazz)</b>	<b>1 s.h.</b>
<i>Prerequisite: 1097.101</i>	
This course includes a basic approach to playing and using the piano in jazz music through an introduction to chords (their symbols and structures), scales (and their relation to chords) and jazz melodies as played and realized by the jazz pianist.	
<b>1004.230 Secondary Applied Piano II (Jazz)</b>	<b>1 s.h.</b>
<i>Prerequisite: 1004.229</i>	
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 the electronic piano.	
<b>1004.305 Jazz Improvisation V/Applied</b>	<b>1 or 2 s.h.</b>
<i>Prerequisite: 1004.208</i>	
This course develops improvisation using modes/diodes and complex meters. The musician listens to progressive jazz artists and institutes these progressive techniques into his/her improvisatory skills.	
<b>1004.306 Jazz Improvisation VI/Applied</b>	<b>1 or 2 s.h.</b>
<i>Prerequisite: 1004.305</i>	
Improvisation, utilizing pentatonic and diminished scales, is stressed within the framework of contemporary harmonies. A thorough study of jazz compositions of the 1980's is undertaken.	
<b>1004.344 Audio Recording</b>	<b>3 s.h.</b>
This course explores the techniques of audio recording. A study of equipment and acoustics is integrated with hands-on training. Students actually record and produce finished products of recorded music or speech.	
<b>1004.361 Arranging for Large/Small Jazz Ensembles</b>	<b>3 s.h.</b>
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.	
<b>1004.363 Writing in Contemporary/Traditional Jazz Styles</b>	<b>3 s.h.</b>
<i>Prerequisite: 1004.217, Jazz Improvisation I-V</i>	
Students explore contemporary jazz styles by listening to and analyzing the music of masters of contemporary, including Chick Corea, Miles Davis, Dave Grusin and many others. Students compose scores in this style for performance in class and on Department of Music jazz concerts. It also explores the construction of the traditional popular jazz melodies that have dominated the history of jazz.	

**1004.407 Jazz Improvisation VII/Applied****1 or 2 s.h.***Prerequisite: 1004.306*

This course emphasizes transcribing and writing solos from all jazz eras with stress on listening and comprehending leading jazz soloists throughout jazz history.

**1004.408 Jazz Improvisation VIII/Applied****1 or 2 s.h.***Prerequisite: 1004.407*

The student writes for and performs/demonstrates via his/her instrument the acquired ingredients that make up a quality improvised jazz solo. All of these ingredients are reviewed and improved over the entire semester. Formal programs are planned and presented both on and off the campus.

**1004.411 Project Audio Recording****3 s.h.***Prerequisite: 1004.344, Major Applied Instrument I-VI*

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.

**1004 Music, Theory****1004.110 Sight Singing and Ear Training****2 s.h.**

The techniques of singing at sight, solfeggio, and taking dictation are reviewed and applied.

**1004.118 Music Fundamentals****3 s.h.**

This course leads to a broader understanding of music through study of its basic elements: melody, rhythm, harmony and form.

**1004.130 Music Theory I – Written****2 s.h.***Prerequisite: Placement exam administered by Music Department*

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.

**1004.131 Music Theory II – Written****2 s.h.***Prerequisite: Must attain a C- or better in 1004.130, 1004.132, must be taken concurrently with 1004.133*

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.

**1004.132 Music Theory I – Aural****2 s.h.***Prerequisite: Placement exam administered by Music Department*

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.

**1004.133 Music Theory II – Aural****2 s.h.***Prerequisite: Must attain a C- or better in 1004.130, 1004.132, must be taken concurrently with 1004.131*

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.

**1004.240 Music Theory III – Written****2 s.h.***Prerequisite: Must attain a C- or better in 1004.131, 1004.133, must be taken concurrently with 1004.242*

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.

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<b>1004.241 Music Theory IV – Written</b>	<b>2 s.h.</b>
<i>Prerequisite: Must attain a C- or better in 1004.240, 1004.242, must be taken concurrently with 1004.243</i> 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.	
<b>1004.242 Music Theory III – Aural</b>	<b>2 s.h.</b>
<i>Prerequisite: Must attain a C- or better in 1004.131, 1004.133, must be taken concurrently with 1004.240</i> 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.	
<b>1004.243 Music Theory IV – Aural</b>	<b>2 s.h.</b>
<i>Prerequisite: Must attain a C- or better in 1004.240, 1004.242, must be taken concurrently with or 1004.241</i> 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.	
<b>1004.403 Vocal-Choral Arranging</b>	<b>2 s.h.</b>
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.	
<b>1006 Music History and Appreciation</b>	
<b>1006.102 General Music History</b>	<b>3 s.h.</b>
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.	
<b>1006.109 Music Appreciation</b>	<b>3 s.h.</b>
Music literature is approached through recordings, live performance and appropriate reading.	
<b>1006.115 Growth and Development of Jazz</b>	<b>3 s.h.</b>
African and European influences, the evolution of jazz styles and the influence of jazz on the musical world are covered.	
<b>1006.117 Expressing Music</b>	<b>3 s.h.</b>
The language of music is learned through singing, rhythmic reading, creative, instrumental and playing activities.	
<b>1006.120 Keyboard Literature</b>	<b>3 s.h.</b>
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.	
<b>1006.210 Vocal Literature</b>	<b>2 s.h.</b>
<i>Prerequisite: 1097.400</i> Historical development and analytical study of literature for the solo voice from the 17th century to the 20th representing classic song literature and arias from opera and oratorio. Particular attention is given to interpretation and style through class performance as well as recordings and concert performance.	
<b>1006.211 Brass and Woodwind Literature</b>	<b>3 s.h.</b>
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.	
<b>1006.214 Development of Musical Styles and Form I</b>	<b>3 s.h.</b>
The principle forms and styles of music and their place in the history of Western Civilization from ancient times through the Renaissance are studied.	

**1006.215 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.

**1006.220 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.

**1006.303 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.

**1006.335 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.

**1006.337 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.

**1006.356 Selected Topics in Music** 3-9 s.h.  
 The subject for any one semester would be chosen from: The Italian Madrigalists, Bach, Beethoven, Mozart, The German Lied, Brahms, The Late Romantics, Stravinsky, Kodaly and Bartok, The Twentieth Century Russians and The Expressionists. Students should consult the course schedule to determine the subject. Prerequisites: Development of Musical Styles and Forms I, II and III, or permission of the instructor. This course may not be offered annually.

**1006.435 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.

**1006.439 New Jazz Structures** 3 s.h.  
 A comprehensive study of compositional and improvisational techniques employed by contemporary (1960-) jazz writers and performers; i.e., John Coltrane, Ornette Coleman, David Baker, Cecil Taylor, Sun Ra.

**1006.447 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.

**1006.448 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.

## **1007 Dramatic Arts**

**1007.103 Speech for the Stage** 3 s.h.

*Prerequisite: 1007.105 or consent of instructor*

This course is an intense study of Voice and Articulation with specific application of these principles to the needs of the stage actor.

**1007.105 Introduction to Acting****.3 s.h.***Prerequisite: for majors only or permission of instructor*

This is designed as a first course in acting for theatre majors. It will stress basic techniques and fundamentals of stage geography, stage movement and oral interpretation. Theatre games, mime and scene study will be used to help students explore the ethics and etiquette of stage performance. This course lays the groundwork for Acting I and advanced study.

**1007.111 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.

**1007.112 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.

**1007.113 Colloquium in Theatre III****.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.

**1007.114 Colloquium in Theatre IV****.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.

**1007.115 Colloquium in Theatre V****.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.

**1007.116 Colloquium in Theatre VI****.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.

**1007.130 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.

**1007.135 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.

<b>1007.195 Exploring Social Issues through Theatre</b>	<b>3 s.h.</b>
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.	
<b>1007.201 Introduction to Theatre</b>	<b>3 s.h.</b>
Students study principal dramatic types from ancient to modern with emphasis on the distinguishing characteristics of form (tragedy, melodrama, comedy, etc.) and on basic elements of structure (classic, neo-classic, contemporary, etc.). The course stresses the fundamentals of play analysis, essential to advanced work in performance, design and history/criticism.	
<b>1007.203 Costuming I</b>	<b>3 s.h.</b>
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.	
<b>1007.205 Costuming II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1007.203</i>	
This is a continuation of the study begun in Costuming I.	
<b>1007.215 Experiencing Acting</b>	<b>3 s.h.</b>
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.	
<b>1007.230 Stagecraft I (Fall)</b>	<b>1.5 s.h.</b>
Students study technical areas in the preparation of a play. Course areas include script analysis for production, production organization and planning crew organization, fundamentals of technical drawing, introduction to shop tools and processes. Students complete a production book as one of the course requirements as well as fulfill assigned responsibilities for actual theatrical productions.	
<b>1007.231 Stagecraft II (Spring)</b>	<b>1.5 s.h.</b>
Stagecraft II is a continuation of the study begun in Stagecraft I.	
<b>1007.232 Stagecraft III (Fall)</b>	<b>1.5 s.h.</b>
<i>Prerequisite: 1007.230, 1007.231 or permission of instructor</i>	
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.	
<b>1007.233 Stagecraft IV (Spring)</b>	<b>1.5 s.h.</b>
<i>Prerequisite: 1007.230, 1007.231 or permission of instructor</i>	
This course is a continuation of the study begun in Stagecraft III.	
<b>1007.235 Acting I (Majors Only)</b>	<b>3 s.h.</b>
<i>Prerequisite: 1506.103 or permission of instructor</i>	
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.	
<b>1007.236 Acting II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1007.235 or permission of instructor</i>	
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.	

## COURSE DESCRIPTIONS

### **1007.240 Practicum - Performance Ensemble**

**0-5 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.  
Effective Fall 2002

### **1007.241 Practicum - Production Ensemble**

**0-5 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.

### **1007.245 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.

### **1007.250 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.

### **1007.270 Theatre Study Off-Campus**

**1-6 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.

### **1007.275 Children's Theatre Workshop**

**3-9 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.

### **1007.300 Drawing and Rendering for the Theatre**

**3 s.h.**

*Prerequisite: 1007.232*

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.

### **1007.301 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, Imam 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.

### **1007.305 Drafting and Modelmaking for the Theatre**

**3 s.h.**

*Prerequisite: 1007.232*

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.

**1007.310 Foundations of Theatrical Design****3 s.h.***Prerequisite: 1007.232*

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.

**1007.315 Reader's Theatre Workshop****3 s.h.***Prerequisite: 1506.135 or permission of instructor*

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.

**1007.335 Advanced Acting****3 s.h.***Prerequisite: 1007.236 or permission of instructor*

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.

**1007.338 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.

**1007.339 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.

**1007.340 History of the Theatre 1700 to 1956****3 s.h.**

This course is a continuation of 1007.339, 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. (1007.339 is not a prerequisite for this course.)

**1007.345 Rehearsal and Performance****.5 s.h.***Prerequisite: 1007.236*

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.

**1007.350 Scene Design Studio****3 s.h.***Prerequisite: 1007.231 or permission of instructor*

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.

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### **1007.353 Stage Lighting Design and Practice** 3 s.h.

*Prerequisite: 1007.231 or permission of instructor*

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.

### **1007.356 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.

### **1007.360 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.

### **1007.365 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 1007.130 or permission of the instructor. This course may not be offered annually.

### **1007.370 Independent Study** 1-3 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.

### **1007.375 Theatre Workshop** 3-6 s.h.

This workshop studies the theoretical and practical aspect of theatre arts through supervision of problems in performance, set design, construction, lighting, costuming and makeup, business management and directing. By permission of Department only. (May be repeated once; maximum of 6 hours)

### **1007.380 Technical Production and Organization** 3 s.h.

*Prerequisite: 1007.232, 1007.234*

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.

### **1007.390 Technical Supervision I** 5 s.h.

*Prerequisite: 1007.230, 1007.231, 1007.232, 1007.233 or permission of instructor*

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.

### **1007.391 Technical Supervision II** 5 s.h.

*Prerequisite: 1007.230, 1007.231, 1007.232, 1007.233 or permission of instructor*

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.

**1007.405 Seminar in Theatre****1 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.

**1007.410 Internship in Theatre****12-15 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.

**1007.430 Directing I****3 s.h.**

*Prerequisite: 1007.231 or permission of instructor*

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.

**1007.431 Directing II****3 s.h.**

*Prerequisite: 1007.430 or permission of instructor*

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.

**1007.435 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.

**1007.440 Contemporary World Theatre - WI****3 s.h.**

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.

**1007.460 Senior Project in Theatre Arts**

*Prerequisite: Senior level Theatre Arts major*

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.

**1008 Dance****1008.126 Movement for the Actor****3 s.h.**

*Prerequisite: 1008.135 or permission of the Dance Coordinator*

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.

## COURSE DESCRIPTIONS

<b>1008.135 Elements of Dance</b>	<b>3 s.h.</b>
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.	
<b>1008.140 Dance Improvisation I</b>	<b>1.5 s.h.</b>
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.	
<b>1008.141 Dance Improvisation II</b>	<b>1.5 s.h.</b>
<i>Prerequisite: 1008.140</i> 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. Effective Fall 2003.	
<b>1008.146 World Dance Forms</b>	<b>3 s.h.</b>
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.	
<b>1008.151 Ethnic and Character Dance</b>	<b>3 s.h.</b>
<i>Prerequisite: 1008.135 or permission of the Dance Coordinator</i> 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.	
<b>1008.190 Ballroom Dance</b>	<b>3 s.h.</b>
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.	
<b>1008.202 Tap Dance I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1008.135 or permission of the Dance Coordinator</i> 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 barre work, 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.	
<b>1008.203 Tap Dance II</b>	<b>3 s.h.</b>
This course continues the study of tap on an intermediate level.	
<b>1008.222 Dance for the Musical Theatre</b>	<b>3 s.h.</b>
<i>Prerequisite: 1008.135 or permission of the Dance Coordinator</i> 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.	
<b>1008.225 Dance Composition I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1008.237</i> 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.	

**1008.226 Dance Composition II** **3 s.h.***Prerequisite: 1008.326 or permission of instructor*

This course provides in-depth compositional theory, methods, and conceptual approaches to traditional and non-literal choreography. It emphasizes the relationship between form, content, technique and projection of the dance image. The student will work both with solo and group forms in order to create choreography to be presented in an informal setting. Sound/music is introduced at this state of creative study. This course is offered annually. Effective Fall 2003.

**1008.236 Modern Dance I** **3 s.h.***Prerequisite: 1008.135 or permission of the Dance Coordinator*

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.

**1008.237 Modern Dance II** **3 s.h.***Prerequisite: 1008.236*

This course continues the technical development of students on an intermediate level; it focuses on the theory and practical application in the principles of Modern Dance.

**1008.246 Ballet I** **3 s.h.***Prerequisite: 1008.135 or permission of the Dance Coordinator*

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 (bar), centre floor and the basic elements of classical ballet vocabulary.

**1008.247 Ballet II** **3 s.h.***Prerequisite: 1008.246*

An intermediate level of technique designed for students with sufficient technical training in Ballet I to continue technical development, this course includes barre (bar) and centre floor and continues to build on the elements of classical ballet.

**1008.256 Jazz Dance I** **3 s.h.***Prerequisite: 1008.135 or permission of the Dance Coordinator*

An introduction to a cross-section of jazz techniques derived from pioneer jazz dancers, this course emphasizes movement styles and jazz rhythms.

**1008.257 Jazz Dance II** **3 s.h.***Prerequisite: 1008.256*

This course is designed for students interested in mastering an intermediate level of movement skill in jazz. It emphasizes theoretical and practical understanding of the jazz form.

**1008.270 Lecture/Demonstration Production** **3 s.h.***Prerequisite: 1008.237*

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.

**1008.311 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.

## COURSE DESCRIPTIONS

### **1008.315 Creative Dance for Children**

**3 s.h.**

*Prerequisite: 1008.135 or permission of the Dance Coordinator*

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.

### **1008.330 Dance Notation**

**3 s.h.**

*Prerequisite: 1008.236, 1008.246*

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.

### **1008.337 Choreography**

**3 s.h.**

*Prerequisite: 1008.326*

This course provides application of the principles of dance composition to choreographic projects by exploring, analyzing and experimenting with problems in dance performance and production. It emphasizes individual and group improvisation and the use of different styles. This course acts as a foundation for field experience. This course may not be offered annually.

### **1008.346 Ballet III**

**3 s.h.**

*Prerequisite: 1008.247*

An advanced level of ballet techniques for the further development and expansion of the ballet movement vocabulary, this course includes adagio and allegro. Partnering may be included depending upon male enrollment. This course may not be offered annually.

### **1008.355 Introduction to Dance Therapy**

**3 s.h.**

*Prerequisite: 1008.135 or permission of the Dance Coordinator*

An introductory course for students who are interested in the field of dance therapy, the course demonstrates dance as a therapeutic and educational growth process that integrates the areas of cognitive, social-emotional and physical development. Part of the course is presented in a clinical setting, offering students an opportunity to apply what has been learned. This course may not be offered annually.

### **1008.360 Jazz Dance III**

**3 s.h.**

*Prerequisite: 1008.257*

This course is designed for students interested in mastering an advanced level of movement skill in jazz dance. It includes a historical perspective on the evolution of jazz dance. Emphasis will be placed on jazz technique, rhythms, terminology, style and performance. This course may not be offered annually.

### **1008.377 Modern Dance III**

**3 s.h.**

*Prerequisite: 1008.237*

This course is designed for students seeking an advanced level of technical training. It includes analysis and development of the styles and techniques of contemporary dance masters. It focuses on technique, musicality, style and performance. This course may not be offered annually.

### **1008.378 Modern Dance IV**

**1.5 s.h.**

*Prerequisite: 1008.377*

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.

**1008.436 Dance History****3 s.h.***Prerequisite: 1008.135 or permission of the Dance Coordinator*

This course studies the vital role dance has in cultural development from prehistoric times to the contemporary period and the relation of dance to music and other art forms throughout history. It stresses individuals and events whose influences shaped the development of dance. This course may not be offered annually.

**1008.465 Dynamics of Human Movement****3 s.h.***Prerequisite: 1008.135 or permission of the Dance Coordinator*

This course offers students a working knowledge of the body from the standpoint of dynamics, spatial orientation, kinesthetic awareness, and alignment principles. It focuses on systems of movement description and analysis and introduces corrective measures to deal with movement habits and patterns that interfere with body performance. This course may not be offered annually.

**1009 Applied Design****1009.101 Digital Media and Techniques****1.5 s.h.**

This foundation workshop introduces students to digital media in solving art and design problems through demonstrations and hands-on experience. Students will explore various computer program applications related to the fine and graphic arts.

**1009.110 Experiencing Art****3 s.h.**

This course provides art experiences as processes which, in a workshop environment, are developed by students into expressional 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.

**1009.200 Theory and Analysis of Art Education****3 s.h.**

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.

**1009.210 Introduction to Jewelry and Metalry I****3 s.h.***Prerequisite: 1002.222 or permission of instructor*

Through individual student work projects this course introduces basic concepts, techniques, materials and procedures employed in the creation of jewelry and metal work.

**1009.211 Intermediate Jewelry/Metalry II****3 s.h.**

These studios emphasize the more complex processes and techniques of working with various silversmithing materials and ideas as applied to forms of adornment, hollow ware and non-functional works.

**1009.212 Jewelry and Metal Casting****3 s.h.***Prerequisite: 1002.222 or permission of instructor*

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.

**1009.225 Introduction to Puppetry I****3 s.h.**

This course provides an overview of the field of puppetry, including history, construction, playwriting and performance. It includes studio work.

**1009.226 Intermediate Puppetry II - Puppetry in Education****3 s.h.**

This course is devoted to structuring puppet experiences in the classroom and teaching with puppets.

**1009.228 Introduction to Illustration I****3 s.h.***Prerequisite: 1002.222*

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.

## COURSE DESCRIPTIONS

<b>1009.229 Intermediate Illustration II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222, 1009.228 or permission of instructor</i>	
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.	
<b>1009.240 Introduction to Ceramics I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission of instructor</i>	
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.	
<b>1009.241 Intermediate Ceramics II</b>	<b>3 s.h.</b>
The above sequential courses are designed to guide the students through a broad spectrum of clay projects and experiences going from simple to complex in these courses. These include a variety of construction techniques, decoration as well as glazing applications, clay and glaze calculations and kiln firing. As work progresses the students are encouraged to develop self-direction, individual style and expression.	
<b>1009.242 Intermediate Ceramics III</b>	<b>3 s.h.</b>
The above sequential courses are designed to guide the students through a broad spectrum of clay projects and experiences going from simple to complex in these courses. These include a variety of construction techniques, decoration as well as glazing applications, clay and glaze calculations and kiln firing. As work progresses the students are encouraged to develop self-direction, individual style and expression.	
<b>1009.243 Intermediate Ceramics IV</b>	<b>3 s.h.</b>
<i>Prerequisite: all previous Ceramics courses or permission of instructor</i>	
The above sequential courses are designed to guide the students through a broad spectrum of clay projects and experiences going from simple to complex in these courses. These include a variety of construction techniques, decoration as well as glazing applications, clay and glaze calculations and kiln firing. As work progresses the students are encouraged to develop self-direction, individual style and expression.	
<b>1009.308 Color Theory</b>	<b>3 s.h.</b>
Through an investigation of classification systems and theories, color theory students will construct color relationships for various applications with paint and digital media.	
<b>1009.310 Intermediate Puppetry III</b>	<b>3 s.h.</b>
This course is devoted to structuring puppet experiences in the classroom and teaching with puppets.	
<b>1009.311 Intermediate Jewelry/Metalry III</b>	<b>3 s.h.</b>
These studios emphasize the more complex processes and techniques of working with various silver-smithing materials and ideas as applied to forms of adornment, hollow ware and non-functional works.	
<b>1009.312 Intermediate Jewelry/Metalry IV</b>	<b>3 s.h.</b>
<i>Prerequisite: all previous Jewelry/Metalry courses or permission of instructor</i>	
These studios emphasize the more complex processes and techniques of working with various silver-smithing materials and ideas as applied to forms of adornment, hollow ware and non-functional works.	
<b>1009.313 Intermediate Puppetry IV</b>	<b>3 s.h.</b>
This course is devoted to structuring puppet experiences in the classroom and teaching with puppets.	
<b>1009.336 Intermediate Illustration III</b>	<b>3 s.h.</b>
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.	

**1009.337 Intermediate Illustration IV****3 s.h.***Prerequisite: all previous Illustration courses or permission of instructor*

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.

**1009.343 Introduction to Graphic Design I****3 s.h.***Prerequisite: 1002.222 or permission of instructor*

This course introduces students to visual problems in the field of advertising design. It covers the background of knowledge and basic skills needed to develop basic potential to create advertising designs.

**1009.344 Intermediate Graphic Design II****3 s.h.***Prerequisite: 1009.343 or permission of instructor*

These studios explore further principles in design and layout, technique, typography, and production, emphasizing professional procedure. Students will receive regular assessment of their performance to assist them in preparing a professional portfolio.

**1009.349 Intermediate Graphic Design III****3 s.h.***Prerequisite: 1009.344 or permission of instructor*

These studios explore further principles in design and layout, technique, typography, and production, emphasizing professional procedure. Students will receive regular assessment of their performance to assist them in preparing a professional portfolio.

**1009.350 Intermediate Graphic Design IV****3 s.h.***Prerequisite: 1009.349 or permission of instructor*

These studios explore further principles in design and layout, technique, typography, and production, emphasizing professional procedure. Students will receive regular assessment of their performance to assist them in preparing a professional portfolio.

**1009.351 Computer Art Techniques I****3 s.h.**

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.

**1009.352 Advanced Ceramics V****3 s.h.**

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.

**1009.353 Advanced Ceramics VI****3 s.h.**

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.

**1009.358 Web Design I****3 s.h.***Prerequisite: 1002.222, 1009.351 or permission of instructor*

This course introduces students to design on the Internet. The focus of the course is on the fundamental skills of drawing, imaging, animation and sound as they are combined in web-based environments. An emphasis is placed on creativity and originality. Students will also learn about the theory and practice of artists working in his medium.

## COURSE DESCRIPTIONS

<b>1009.359 Web Design II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1009.358 or permission of instructor</i>	
Web Design II is a continuation of the exploration started in Web Design I. Students will advance their knowledge by mastering professional skills in solving design problems in web-based environments. Students will also learn about the theory and practice of artists working in this medium.	
<b>1009.363 Advanced Graphic Design V</b>	<b>3 s.h.</b>
These studios emphasize more advanced study helping students refine their professional skills. Students will assemble portfolios, which can be presented to prospective employers.	
<b>1009.364 Advanced Graphic Design VI</b>	<b>3 s.h.</b>
These studios emphasize more advanced study helping students refine their professional skills. Students will assemble portfolios, which can be presented to prospective employers.	
<b>1009.365 Motion Graphics I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222, 1009.358, 1009.351 or permission of instructor</i>	
Students go beyond the flat print to create visual work that explores spatial and temporal works that lead to animation. Animation studies are captured on disk and on tape. A new aspect of animation is the field of presentations, which is used in commercial art, business and industry but is also an option for the fine artist. Animation Works and Crystal 3D are the programs used to produce professional quality animation.	
<b>1009.375 Motion Graphics II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1009.365 or permission of instructor</i>	
This class is a continuation of previous studies and pursuits. 2D and 3D animation will be continued in this course. Students working in 3D animation need to continue mastery of Crystal 3D animation and Animation Works.	
<b>1009.377 Multimedia Computer Art</b>	<b>3 s.h.</b>
<i>Prerequisite: 1009.365</i>	
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 story board to a unique and finished presentation. Students will also learn about the theory and practice of artists working in this medium.	
<b>1009.380 Advanced Puppetry V</b>	<b>3 s.h.</b>
<i>Prerequisite: all previous Puppetry courses or permission of instructor</i>	
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.	
<b>1009.381 Advanced Puppetry VI</b>	<b>3 s.h.</b>
These studio courses offer in-depth involvement with sophisticated puppetry techniques. Students will develop individual expertise, style and approaches to the art of puppetry.	
<b>1009.390 Work in Progress Review</b>	
<i>Prerequisite: 1002.222, at least nine additional credits in studio-minimum of 21 studio credits</i>	
A required review of work-in-progress for all B.F.A. students.	
<b>1009.401 Senior Show or Project</b>	
Each B.A. student will prepare and mount selected works as a senior exhibition or execute an equivalent project. Required for graduation.	
<b>1009.405 Advanced Puppetry VII</b>	<b>3 s.h.</b>
These studio courses offer in-depth involvement with sophisticated puppetry techniques. Students will develop individual expertise, style and approaches to the art of puppetry.	

**1009.406 Advanced Puppetry VIII****3 s.h.***Prerequisite: all previous Puppetry courses or permission of instructor*

These studio courses offer in-depth involvement with sophisticated puppetry techniques. Students will develop individual expertise, style and approaches to the art of puppetry.

**1009.410 Applied Projects in Puppetry****3 s.h.**

This is a professionally oriented course during which students will relate puppetry to their chosen fields, e.g. advertising, education, television, theatre and therapy. Problems will be structured for practical application of student's skills and knowledge.

**1009.411 Advanced Jewelry/Metraly V****3 s.h.**

Advanced level studios designed for the designer-craftsperson student electing to develop in-depth knowledge and skills in all aspects of jewelry and metraly as a professional field. Students will identify research, and create special works in consultation with their professor.

**1009.412 Advanced Jewelry/Metraly VI****3 s.h.**

Advanced level studios designed for the designer-craftsperson student electing to develop in-depth knowledge and skills in all aspects of jewelry and metraly as a professional field. Students will identify research, and create special works in consultation with their professor.

**1009.419 Advanced Illustration V****3 s.h.**

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.

**1009.420 Advanced Illustration VI****3 s.h.**

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.

**1009.439 Advanced Illustration VII****3 s.h.**

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.

**1009.440 Advanced Illustration VIII****3 s.h.***Prerequisite: all previous Illustration courses or permission of instructor*

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.

**1009.450 Advanced Ceramics VII****3 s.h.**

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.

**1009.451 Advanced Ceramics VIII****3 s.h.***Prerequisite: all previous Ceramics courses or permission of instructor*

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.

**1009.452 Computer Art Techniques II****3 s.h.***Prerequisite: 1009.351 or permission of instructor*

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.

## COURSE DESCRIPTIONS

<b>1009.460 Advanced Jewelry/Metalry VII</b>	<b>3 s.h.</b>
Advanced level studios designed for the designer-craftsperson student electing to develop in-depth knowledge and skills in all aspects of jewelry and metalry as a professional field. Students will identify research, and create special works in consultation with their professor.	

<b>1009.461 Advanced Jewelry/Metalry VIII</b>	<b>3 s.h.</b>
<i>Prerequisite: all previous Jewelry/Metalry courses or permission of instructor</i>	

Advanced level studios designed for the designer-craftsperson student electing to develop in-depth knowledge and skills in all aspects of jewelry and metalry as a professional field. Students will identify research, and create special works in consultation with their professor.	
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<b>1009.463 Advanced Graphic Design VII</b>	<b>3 s.h.</b>
These studios emphasize more advanced study helping students refine their professional skills. Students will assemble portfolios, which can be presented to prospective employers.	

<b>1009.464 Advanced Graphic Design VIII</b>	<b>3 s.h.</b>
<i>Prerequisite: all previous Graphic Design courses or permission of instructor</i>	

These studios emphasize more advanced study helping students refine their professional skills. Students will assemble portfolios, which can be presented to prospective employers.	
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### **1009.490 B.F.A. Senior Thesis Exhibition**

*Prerequisite: 1009.390, at least 54 s.h. in the Art Major*

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.

## **1010 RTF - Cinematography**

<b>1010.270 Film History and Appreciation I</b>	<b>3 s.h.</b>
<i>Prerequisite: 30 hours</i>	

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.

## **1011 Photography**

<b>1011.250 Introduction to Photography I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1002.222 or permission of instructor</i>	

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.

<b>1011.275 Intermediate Photography II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1011.250</i>	

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.

**1011.375 Non-Silver Imagery****3 s.h.***Prerequisite: 1011.250*

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.

**1011.380 Digital Photography****3 s.h.***Prerequisite: 1011.250, 1009.351*

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.

**1011.385 Large Format Photography****3 s.h.***Prerequisite: 1011.250, 1011.275*

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.

**1011.405 Advanced Photo Techniques****3 s.h.***Prerequisite: 1011.250, 1011.275*

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.

**1097 Music, Applied****1097.105 Major Applied-Instrumental I****1 or 2 s.h.**

The student must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. See Department of Music Curriculum Guides for specific requirements for instrument majors. In the saxophone family, only the alto is acceptable as a major. All Major Applied courses must be taken in sequence: 1097.106; 1097.205; 1097.206; 1097.305; 1097.306; 1097.405; 1097.406. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

<b>1097.106 Major Applied-Instrumental II</b>	<b>1 or 2 s.h.</b>
The student must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. See Department of Music Curriculum Guides for specific requirements for instrument majors. In the saxophone family, only the alto is acceptable as a major. All Major Applied courses must be taken in sequence: 1097.106; 1097.205; 1097.206; 1097.305; 1097.306; 1097.405; 1097.406. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.	1 or 2 s.h.
<b>1097.107 Major Applied-Voice I</b>	<b>1 or 2 s.h.</b>
The students must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. Proficiency in the principles of vocal production, ability to perform selections from standard literature including arias from operas and oratorios and singing in three languages other than English are required of the major in this field for graduation. Major Applied courses must be taken in sequence: 1097.108; 1097.207; 1097.208; 1097.307; 1097.308; 1097.407; 1097.408. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.	1 or 2 s.h.
<b>1097.108 Major Applied-Voice II</b>	<b>1 or 2 s.h.</b>
The students must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. Proficiency in the principles of vocal production, ability to perform selections from standard literature including arias from operas and oratorios and singing in three languages other than English are required of the major in this field for graduation. Major Applied courses must be taken in sequence: 1097.108; 1097.207; 1097.208; 1097.307; 1097.308; 1097.407; 1097.408. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.	1 or 2 s.h.
<b>1097.114 Secondary Applied-Instrumental I</b>	<b>1 s.h.</b>
This course offers individual instruction in basic technique and interpretation on an instrument other than the applied major. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.	1 s.h.
<b>1097.115 Secondary Applied-Instrumental II</b>	<b>1 s.h.</b>
This course offers individual instruction in basic technique and interpretation on an instrument other than the applied major. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.	1 s.h.
<b>1097.124 Secondary Applied-Voice I</b>	<b>1 s.h.</b>
Private instruction in the basic techniques and development of voice for the individual in the music field who is not majoring in voice. The understanding of his voice, pedagogical practices in the vocal field and vocal repertoire are the major objectives to be explored. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.	1 s.h.
<b>1097.125 Secondary Applied-Voice II</b>	<b>1 s.h.</b>
Private instruction in the basic techniques and development of voice for the individual in the music field who is not majoring in voice. The understanding of his voice, pedagogical practices in the vocal field and vocal repertoire are the major objectives to be explored. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.	1 s.h.
<b>1097.205 Major Applied-Instrumental III</b>	<b>1 or 2 s.h.</b>
The student must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. See Department of Music Curriculum Guides for specific requirements for instrument majors. In the saxophone family, only the alto is acceptable as a major. All Major Applied courses must be taken in sequence: 1097.106; 1097.205; 1097.206; 1097.305; 1097.306; 1097.405; 1097.406. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.	1 or 2 s.h.

**1097.206 Major Applied-Instrumental IV****1 or 2 s.h.**

The student must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. See Department of Music Curriculum Guides for specific requirements for instrument majors. In the saxophone family, only the alto is acceptable as a major. All Major Applied courses must be taken in sequence: 1097.106; 1097.205; 1097.206; 1097.305; 1097.306; 1097.405; 1097.406. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

**1097.207 Major Applied-Voice III****1 or 2 s.h.**

The students must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. Proficiency in the principles of vocal production, ability to perform selections from standard literature including arias from operas and oratorios and singing in three languages other than English are required of the major in this field for graduation. Major Applied courses must be taken in sequence: 1097.108; 1097.207; 1097.208; 1097.307; 1097.308; 1097.407; 1097.408. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

**1097.208 Major Applied-Voice IV****1 or 2 s.h.**

The students must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. Proficiency in the principles of vocal production, ability to perform selections from standard literature including arias from operas and oratorios and singing in three languages other than English are required of the major in this field for graduation. Major Applied courses must be taken in sequence: 1097.108; 1097.207; 1097.208; 1097.307; 1097.308; 1097.407; 1097.408. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

**1097.214 Secondary Applied-Instrumental III****1 s.h.**

This course offers individual instruction in basic technique and interpretation on an instrument other than the applied major. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

**1097.215 Secondary Applied-Instrumental IV****1 s.h.**

This course offers individual instruction in basic technique and interpretation on an instrument other than the applied major. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

**1097.224 Secondary Applied-Voice III****1 s.h.**

Private instruction in the basic techniques and development of voice for the individual in the music field who is not majoring in voice. The understanding of his voice, pedagogical practices in the vocal field and vocal repertoire are the major objectives to be explored. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

**1097.225 Secondary Applied-Voice IV****1 s.h.**

Private instruction in the basic techniques and development of voice for the individual in the music field who is not majoring in voice. The understanding of his voice, pedagogical practices in the vocal field and vocal repertoire are the major objectives to be explored. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

**1097.305 Major Applied-Instrumental V****1 or 2 s.h.**

The student must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. See Department of Music Curriculum Guides for specific requirements for instrument majors. In the saxophone family, only the alto is acceptable as a major. All Major Applied courses must be taken in sequence: 1097.106; 1097.205; 1097.206; 1097.305; 1097.306; 1097.405; 1097.406. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

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### **1097.306 Major Applied-Instrumental VI**

**1 or 2 s.h.**

The student must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. See Department of Music Curriculum Guides for specific requirements for instrument majors. In the saxophone family, only the alto is acceptable as a major. All Major Applied courses must be taken in sequence: 1097.106; 1097.205; 1097.206; 1097.305; 1097.306; 1097.405; 1097.406. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

### **1097.307 Major Applied-Voice V**

**1 or 2 s.h.**

The students must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. Proficiency in the principles of vocal production, ability to perform selections from standard literature including arias from operas and oratorios and singing in three languages other than English are required of the major in this field for graduation. Major Applied courses must be taken in sequence: 1097.108; 1097.207; 1097.208; 1097.307; 1097.308; 1097.407; 1097.408. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

### **1097.308 Major Applied-Voice VI**

**1 or 2 s.h.**

The students must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. Proficiency in the principles of vocal production, ability to perform selections from standard literature including arias from operas and oratorios and singing in three languages other than English are required of the major in this field for graduation. Major Applied courses must be taken in sequence: 1097.108; 1097.207; 1097.208; 1097.307; 1097.308; 1097.407; 1097.408. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

### **1097.314 Secondary Applied-Instrumental V**

**1 s.h.**

This course offers individual instruction in basic technique and interpretation on an instrument other than the applied major. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

### **1097.315 Secondary Applied-Instrumental VI**

**1 s.h.**

This course offers individual instruction in basic technique and interpretation on an instrument other than the applied major. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

### **1097.324 Secondary Applied-Voice V**

**1 s.h.**

Private instruction in the basic techniques and development of voice for the individual in the music field who is not majoring in voice. The understanding of his voice, pedagogical practices in the vocal field and vocal repertoire are the major objectives to be explored. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

### **1097.325 Secondary Applied-Voice VI**

**1 s.h.**

Private instruction in the basic techniques and development of voice for the individual in the music field who is not majoring in voice. The understanding of his voice, pedagogical practices in the vocal field and vocal repertoire are the major objectives to be explored. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

### **1097.405 Major Applied-Instrumental VII**

**1 or 2 s.h.**

The student must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. See Department of Music Curriculum Guides for specific requirements for instrument majors. In the saxophone family, only the alto is acceptable as a major. All Major Applied courses must be taken in sequence: 1097.106; 1097.205; 1097.206; 1097.305; 1097.306; 1097.405; 1097.406. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

**1097.406 Major Applied-Instrumental VIII****1 or 2 s.h.**

The student must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. See Department of Music Curriculum Guides for specific requirements for instrument majors. In the saxophone family, only the alto is acceptable as a major. All Major Applied courses must be taken in sequence: 1097.106; 1097.205; 1097.206; 1097.305; 1097.306; 1097.405; 1097.406. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

**1097.407 Major Applied-Voice VII****1 or 2 s.h.**

The students must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. Proficiency in the principles of vocal production, ability to perform selections from standard literature including arias from operas and oratorios and singing in three languages other than English are required of the major in this field for graduation. Major Applied courses must be taken in sequence: 1097.108; 1097.207; 1097.208; 1097.307; 1097.308; 1097.407; 1097.408. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

**1097.408 Major Applied-Voice VIII****1 or 2 s.h.**

The students must pass a departmental audition before acceptance into these courses. Performance in student recitals and ensembles is required each semester. Proficiency in the principles of vocal production, ability to perform selections from standard literature including arias from operas and oratorios and singing in three languages other than English are required of the major in this field for graduation. Major Applied courses must be taken in sequence: 1097.108; 1097.207; 1097.208; 1097.307; 1097.308; 1097.407; 1097.408. This course of study is only available as a degree requirement for the B.A. in Music, the B.M. in Music Education and the Coordinate Major in Music.

**1097.414 Secondary Applied-Instrumental VII****1 s.h.**

This course offers individual instruction in basic technique and interpretation on an instrument other than the applied major. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

**1097.415 Secondary Applied-Instrumental VIII****1 s.h.**

This course offers individual instruction in basic technique and interpretation on an instrument other than the applied major. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

**1097.424 Secondary Applied-Voice VII****1 s.h.**

Private instruction in the basic techniques and development of voice for the individual in the music field who is not majoring in voice. The understanding of his voice, pedagogical practices in the vocal field and vocal repertoire are the major objectives to be explored. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

**1097.425 Secondary Applied-Voice VIII****1 s.h.**

Private instruction in the basic techniques and development of voice for the individual in the music field who is not majoring in voice. The understanding of his voice, pedagogical practices in the vocal field and vocal repertoire are the major objectives to be explored. Secondary Applied instruction is available on a very restricted basis or as a degree requirement for the Music Minor.

**1097 Music, Developmental Skills****1097.100 Piano Class I****1 s.h.**

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 (1097.100) with or after Written Theory I (1004.130); Piano Class II (1097.101) with or after Written Theory II (1004.131); Piano Class III (1097.200) with or after Written Theory III (1004.240), and Piano Class IV (1097.241) with or after Written Theory IV (1004.217). Not open to non-music majors.

## COURSE DESCRIPTIONS

<b>1097.101 Piano Class II</b>	<b>1 s.h.</b>
<i>Prerequisite: 1097.100 or permission of the instructor</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 (1097.100) with or after Written Theory I (1004.130); Piano Class II (1097.101) with or after Written Theory II (1004.131); Piano Class III (1097.200) with or after Written Theory III (1004.240), and Piano Class IV (1097.241) with or after Written Theory IV (1004.217). Not open to non-music majors.	
<b>1097.102 Piano I for Non-Music Majors</b>	<b>3 s.h.</b>
Beginning piano taught in a class. No previous experience in music is necessary. Not for music majors.	
<b>1097.103 Piano II for Non-Music Majors</b>	<b>3 s.h.</b>
<i>Prerequisite: Piano I for Non-Music Majors or permission of the instructor</i> A continuation of Piano I for Non-Music Majors. Not for music majors.	
<b>1097.111 String Class-Low</b>	<b>1 s.h.</b>
The fundamentals of cello and bass are studied.	
<b>1097.112 String Class-High</b>	<b>1 s.h.</b>
Fingering and bowing patterns, tone production, tuning, methods and materials are studied for the violin and viola.	
<b>1097.200 Piano Class III</b>	<b>1 s.h.</b>
<i>Prerequisite: 1097.101 or permission of the instructor</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 (1097.100) with or after Written Theory I (1004.130); Piano Class II (1097.101) with or after Written Theory II (1004.131); Piano Class III (1097.200) with or after Written Theory III (1004.240), and Piano Class IV (1097.241) with or after Written Theory IV (1004.217). Not open to non-music majors.	
<b>1097.201 Piano Class IV</b>	<b>1 s.h.</b>
<i>Prerequisite: 1097.200 or permission of the instructor</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 (1097.100) with or after Written Theory I (1004.130); Piano Class II (1097.101) with or after Written Theory II (1004.131); Piano Class III (1097.200) with or after Written Theory III (1004.240), and Piano Class IV (1097.241) with or after Written Theory IV (1004.217). Not open to non-music majors.	
<b>1097.212 Conducting-Instrumental I</b>	<b>1 s.h.</b>
This course demonstrates and rehearses the skills of instrumental conducting through music for instrumental ensembles.	
<b>1097.213 Conducting-Choral I</b>	<b>1 s.h.</b>
The skills necessary to conduct choral music are developed through rehearsals in class and by participation in other planned ensemble situations.	
<b>1097.229 Guitar Class I</b>	<b>3 s.h.</b>
A study of the guitar performance and a study of the materials available.	
<b>1097.230 Guitar Class II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1097.229</i> A continuation of the study of the guitar through performance and a study of the materials available.	
<b>1097.300 French Horn Class</b>	<b>.5 s.h.</b>
The fundamentals of the French horn are studied.	

<b>1097.301 Trombone Class</b>	.5 s.h.
The fundamentals of the trombone are studied.	
<b>1097.302 Percussion Class</b>	1 s.h.
A study of rudimental and ensemble techniques of snare drum, timpani, bass drum, cymbals and accessory instruments.	
<b>1097.309 Trumpet Class</b>	.5 s.h.
The fundamentals of trumpet are studied.	
<b>1097.310 Tuba Class</b>	.5 s.h.
The fundamentals of tuba are studied.	
<b>1097.312 Conducting-Instrumental II</b>	1 s.h.
<i>Prerequisite: 1097.212</i>	
This course demonstrates and rehearses the skills of instrumental conducting through music for instrumental ensembles.	
<b>1097.313 Conducting-Choral II</b>	1 s.h.
<i>Prerequisite: 1097.213</i>	
The skills necessary to conduct choral music are developed through rehearsals in class and by participation in other planned ensemble situations.	
<b>1097.335 The Business of Music</b>	3 s.h.
<i>Prerequisite: Junior Level</i>	
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.	
<b>1097.400 Voice Class</b>	1 s.h.
This course offers techniques of vocal production designed to give a general knowledge of the principles of good singing. Choral techniques through vocal development will be studied for elementary, junior high, and secondary levels. Correct use and pronunciation of English as applied to vocal literature in individual and group participation.	
<b>1097.401 Bassoon Class</b>	.5 s.h.
This course teaches the fundamentals of the bassoon.	
<b>1097.402 Clarinet Class</b>	.5 s.h.
This class teaches the fundamentals of the clarinet.	
<b>1097.403 Saxophone Class</b>	.5 s.h.
The fundamentals of the saxophone are studied.	
<b>1097.404 Reedmaking and Instrument Repair</b>	.5 s.h.
The fundamentals of reedmaking and repair of instruments are studied.	
<b>1097.409 Flute Class</b>	.5 s.h.
The fundamentals of the flute are studied.	
<b>1097.410 Oboe Class</b>	.5 s.h.
The fundamentals of the oboe are studied.	

**1102 French****1102.101 Elementary French I****3 s.h.**

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.

**1102.102 Elementary French II****3 s.h.**

*Prerequisite: 1102.101 or one year of recent high school French or waiver*

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.

**1102.201 Intermediate French I****3 s.h.**

*Prerequisite: 1102.102 or two years of recent high school French or waiver*

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.

**1102.205 Oral French****3 s.h.**

*Prerequisite: 1102.211 or waiver*

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.

**1102.211 Intermediate French II****3 s.h.**

*Prerequisite: 1102.201 or three years of recent high school French or waiver*

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.

**1102.212 French Reading and Composition****3 s.h.**

*Prerequisite: 1102.211 or 4 years of recent high school French or waiver*

This course offers a broad grammar review based on readings, practical use of the language, written compositions and dictations.

**1102.300 French Phonetics****3 s.h.**

*Prerequisite: 1102.212 or waiver*

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.

**1102.311 Advanced French Conversation****3 s.h.**

*Prerequisite: 1102.212 or waiver*

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.

**1102.315 Introduction to French Literature****3 s.h.**

*Prerequisite: 1102.212 or waiver*

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.

**1102.320 French Civilization and Culture****3 s.h.**

*Prerequisite: 1102.212 or waiver*

This course provides students with a more profound insight into the varied aspects of contemporary France, its civilization and culture.

**1102.324 Appreciation of French Literature****3 s.h.***Prerequisite: 1102.212 or waiver*

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.

**1102.325 Readings in Contemporary French Literature****3 s.h.***Prerequisite: 1102.325 or waiver*

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.

**1102.326 The French Novel****3 s.h.***Prerequisite: 1102.212 or waiver*

This course consists of an analysis of the French novel from the beginning to the present day. Students read and discuss selected major works.

**1102.400 History of the French Language****3 s.h.***Prerequisite: 1102.212 or waiver*

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.

**1102.410 Advanced French Composition****3 s.h.***Prerequisite: 1102.212 or waiver*

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.

**1102.420 Evolution of French Civilization****3 s.h.***Prerequisite: 1102.212 or waiver*

This course surveys French history, art and social institutions as well as the contributions of France to Western Civilization.

**1102.421 The French Short Story****3 s.h.***Prerequisite: 1102.212 or waiver*

This course analyzes the French short story in its various aspects. It studies in detail selected works of major authors in the genre.

**1102.435 Individual Study (French)****1 to 8 s.h.**

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.

**1102.499 Study Abroad****1-6 s.h.**

The Department encourages students to study abroad. This course is designed to give first hand knowledge of the social, cultural and historical life of France and Francophone countries. The University offers a study abroad program. For further information contact the Director of the International Center or the department chairperson.

**1103 German****1103.101 Elementary German I****3 s.h.**

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.

## COURSE DESCRIPTIONS

### **1103.102 Elementary German II** 3 s.h.

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.

### **1103.201 Intermediate German I** 3 s.h.

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.

### **1103.211 Intermediate German II** 3 s.h.

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.

### **1103.212 German Reading and Composition** 3 s.h.

This course offers a broad grammar review based on readings, practical use of the language, written compositions and dictations.

### **1103.311 Advanced German Conversation** 3 s.h.

This advanced conversation course uses topics from the contemporary German press. It emphasizes clarity and fluency of expression and includes discussions in German on topics of contemporary interest which lead to the active expansion of vocabulary.

### **1103.320 German Civilization and Culture** 3 s.h.

This course surveys German history, arts and social institutions as well as Germany's contributions to Western civilization.

## **1104 Italian**

### **1104.101 Elementary Italian I** 3 s.h.

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.

### **1104.102 Elementary Italian II** 3 s.h.

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.

### **1104.201 Intermediate Italian I** 3 s.h.

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.

### **1104.211 Intermediate Italian II** 3 s.h.

*Prerequisite: 1104.201*

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.

## **1105 Spanish**

### **1105.101 Spanish I** 3 s.h.

(No prerequisite: open to students with no previous experience in Spanish) This course provides an overview of the syntax, structures, and vocabulary of the Spanish language, including intensive practice in the four skill areas of listening comprehension, speaking, reading and writing. It introduces the student to the culture and history of the Spanish-speaking world.

**1105.102 Spanish II****3 s.h.***Prerequisite: 1105.101 or one year of recent high school Spanish or waiver*

(Continuation of Spanish I) This course provides an overview of the syntax, structures, and vocabulary of the Spanish language, including intensive practice in the four skill areas of listening comprehension, speaking, reading and writing. It introduces the student to the culture and history of the Spanish-speaking world.

**1105.201 Spanish III****3 s.h.***Prerequisite: 1105.102 or 2 years of high school Spanish or waiver*

(Continuation of Spanish I and II) This course expands the advancing student's knowledge of the syntax, structures, and vocabulary of the Spanish language. It stresses the perfection of receptive skills (listening and reading) while developing productive skills (speaking and writing). The culture and history of the Spanish-speaking world is presented in context.

**1105.205 Oral Spanish****3 s.h.***Prerequisite: 1105.211 or waiver*

This conversation course develops a greater active Spanish vocabulary and improves verbal patterns and habits leading to greater facility in manipulating spoken Spanish.

**1105.211 Spanish Reading and Conversation****3 s.h.***Prerequisite: 1105.201 or 3 years of high school Spanish or waiver*

This course is open to students with previous preparation in Spanish. It offers expanded practice in listening comprehension and speaking. Supported by selected readings of authentic materials, it provides opportunities for vocabulary enrichment and confident expression in the Spanish language.

**1105.212 Spanish Reading and Composition****3 s.h.***Prerequisite: 1105.211 or 4 years of recent high school Spanish or waiver*

This course is open to students with previous preparation in Spanish. It offers expanded practice in composition, supported by literary texts in various genres. It will train the student to write for different purposes, including summaries, opinion papers, letters and literary analysis.

**1105.250 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.

**1105.300 Spanish Phonetics****3 s.h.***Prerequisite: 1105.212 or waiver*

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.

**1105.312 Spanish for Business****3 s.h.***Prerequisite: 1105.211 or three years of high school Spanish or waiver*

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.

**1105.320 Spanish Civilization and Culture****3 s.h.***Prerequisite: 1105.212 or waiver*

This course provides an introductory study of the religion, political development, philosophy and customs of Spain as well as a survey of Spanish contributions to Western Civilization.

## COURSE DESCRIPTIONS

<b>1105.321 Survey of Spanish Literature I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.324 or waiver</i>	
This course studies authors, beginning with the Middle Ages and continuing to the mid-eighteenth century, making an analysis of their contributions, importance and influence in the historical and literary movements of their century. They are read in the original language.	
<b>1105.322 Survey of Spanish Literature II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.321 or 1105.324 or waiver</i>	
This course is a continuation of Spanish 321, covering works from the mid-eighteenth century to the beginning of the twentieth century	
<b>1105.323 Spanish-American Literature</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.324 or waiver</i>	
This course introduces the origin and growth of the prose and poetry of Spanish-American Literature, portraying the development of national trends.	
<b>1105.324 Spanish-American Civilization and Culture</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or waiver</i>	
This course provides an introductory study of the political history, philosophy and customs of the Spanish-American countries.	
<b>1105.325 Readings in Contemporary Spanish Literature</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.324 or waiver</i>	
This course examines modern novels, plays and other genres with two objectives: developing vocabulary and idioms, and introducing trends in modern Spanish and Spanish-American Literature.	
<b>1105.326 Spanish Novel</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.324 or waiver</i>	
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.	
<b>1105.327 Spanish-American Poetry</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.324 or waiver</i>	
Students are introduced to general trends in the poetry of Spanish America.	
<b>1105.328 Spanish-American Theatre</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.324 or waiver</i>	
This course introduces students to trends in the theatre, from pre-Columbian days to the present.	
<b>1105.340 Introduction to Spanish Translation</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.324 or waiver</i>	
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.	
<b>1105.381 Contemporary Spanish Theatre</b>	<b>3 s.h.</b>
<i>Prerequisite: 1105.320 or 1105.324 or waiver</i>	
This course introduces students to recent trends in the theatre of Spain.	

**1105.383 Spanish-American Short Story** **3 s.h.***Prerequisite: 1105.320 or 1105.324 or waiver*

Designed as an introduction to primary sources of information concerning the development of Spanish-American culture, this course familiarizes the student with representative Spanish-American short stories, especially of the 20th Century. The course stresses fluency and self expression in Spanish.

**1105.400 History of the Spanish Language** **3 s.h.***Prerequisite: 1105.320 or 1105.324 or waiver*

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.

**1105.409 Advanced Spanish Grammar and Composition (WI)** **3 s.h.***Prerequisite: 1105.320 or 1105.324 or waiver*

Same as 1105.410. This course offered as writing intensive.

**1105.410 Advanced Spanish Grammar and Composition** **3 s.h.***Prerequisite: 1105.320 or 1105.324 or waiver*

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.

**1105.411 Advanced Spanish Conversation** **3 s.h.***Prerequisite: 1105.320 or 1105.324 or waiver*

This course develops fluency in oral Spanish. Classes are based on discussions of topics of contemporary interest from various media sources.

**1105.426 Spanish-American Novel** **3 s.h.***Prerequisite: 1105.320 or 1105.324 or waiver*

Students will read representative works of the Spanish-American novel.

**1105.435 Individual Study (Spanish)** **1 to 8 s.h.***Prerequisite: 1105.320 or 1105.324, junior standing or waiver*

Students may contract with an instructor to be examined on recommended readings in various areas of Spanish literature. Non-majors may do the readings in translation; Spanish majors must do the readings in Spanish. No more than 3 semester hours may be taken in any one semester.

**1105.440 Special Topics in Foreign Languages and Literatures** **3 s.h.**

*Prerequisite: Spanish -1105.320 or 1105.324. Other languages will be determined by permission of the professor based on an evaluation of student proficiency.*

This course brings new perspectives and themes to the established Foreign Languages and Literatures curriculum. Students will expand their knowledge base pertaining to foreign languages and literatures as they gain more in-depth knowledge of a chosen special topic.

**1105.481 The Generation of 1898** **3 s.h.***Prerequisite: 1105.320 or 1105.324 or waiver*

This course studies the origin, development and influence of the so-called "Generation of '98," its philosophy and outstanding characteristics. Students read and discuss works of some of the major authors.

**1105.482 Modern Spanish Novel** **3 s.h.***Prerequisite: 1105.320 or 1105.324 or waiver*

This course studies the modern novel in Spain and its most outstanding characteristics, with reading and discussion of some of the best known writers.

**1105.499 Study Abroad****1 to 6 s.h.**

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.

**1106 Russian****1106.101 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.

**1106.102 Elementary Russian II****3 s.h.**

*Prerequisite: 1106.101 or waiver*

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.

**1106.201 Intermediate Russian I****3 s.h.**

*Prerequisite: 1106.102 or waiver*

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

**1106.211 Intermediate Russian II****3 s.h.**

*Prerequisite: 1106.201 or waiver*

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.

**1106.345 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.

**1106.347 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.

**1107 Chinese****1107.101 Elementary Chinese I****3 s.h.**

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.

**1107.102 Elementary Chinese II****3 s.h.**

*Prerequisite: 1107.101 or permission of instructor*

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.

**1109 Latin****1109.101 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.

**1109.102 Elementary Latin II****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.

**1116 Zulu****1116.101 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.

**1116.102 Zulu II****3 s.h.**

*Prerequisite: 1116.101 or waiver*

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.

**1203 Nursing****1203.301 Theory and Practice of Professional Nursing****3 s.h.**

*Prerequisite: enrollment in UMDNJ/Rowan Joint R.N. to B.S.N. Program*

Building on the historical and theoretical foundations of the profession, students will explore the theme of health, the health continuum, the socio-cultural variations that influence health and response to illness, and the many dimensions of health. Nursing interventions will be explored in relation to ethical, social, legal, political, and personal issues as students clarify their own professional identity, responsibility, and power.

**1203.303 Comprehensive Health Assessment****3 s.h.**

*Prerequisite: 1203.301, enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

This course focuses on total health assessment with differentiation between normal and abnormal findings of individuals across the life span. Emphasis is placed on data collection and analysis through history, physical examination, and clinical studies.

**1203.304 Nursing Informatics****3 s.h.**

*Prerequisite: enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

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.

**1203.305 Pathophysiology****3 s.h.**

*Prerequisite: 1203.301, enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

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.

**1203.306 Pharmacology****3 s.h.**

*Prerequisite: enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

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. 2 credits Elective.

**1203.307 Epidemiology in Nursing Practice****3 s.h.**

*Prerequisite: enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

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.

## COURSE DESCRIPTIONS

### **1203.401 Community Health Nursing** 6 s.h.

*Prerequisite: 1203.301, 1203.303, 1203.305, 1203.306, enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

Students in this course will explore how community health nurses use concepts from nursing and public health to provide comprehensive, continuous, preventative 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 client. The clinical practicum focuses on clients with diverse needs in a variety of settings.

### **1203.402 Environmental and Occupational Health** 4 s.h.

*Prerequisite: 1203.301, 1203.303, 1203.304, 1203.305, 1203.306, enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

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.

### **1203.403 Nursing Care Delivery Systems** 4 s.h.

*Prerequisite: 1203.401, 1203.402, 1203.404, enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

The focus of this course is the professional nurse's leadership and management role within health care 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. Organization behavior, decision-making, and the change process and 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. The clinical component focuses on the application of relevant theory and research as a basis for decision making. Students are mentored by nurse managers, and interact with members of the management team, and are exposed to the political process within health care agencies.

### **1203.404 Research Applications in Nursing Practice** 3 s.h.

*Prerequisite: 1203.304, 1702.100 or equivalent, enrollment in the UMDNJ/Rowan Joint R.N. to B.S.N. Program*

Students enrolled in this course will be introduced to the concepts and processes of research in nursing. Emphasis is placed on critiquing published studies and developing plans for using research findings in practice.

### **1203.405 Health Care Policy and Finance** 3 s.h.

*Prerequisite/Co-requisite: 1203.401, 1203.404, enrollment in the UMDNJ/Rowan Joint RN-to-BSN Program*

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 financing and policy making 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.

## **1305 Family Relations and Child Development**

### **1305.302 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.

**1306 Foods and Nutrition****1306.200 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.

**1306.390 Nutrition Education****3 s.h.**

*Prerequisite: a nutrition course or permission of instructor*

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.

**1306.415 Nutrition for Fitness****3 s.h.**

*Prerequisite: 1306.200*

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.

**1498 Legal Processes****1498.400 Law for Accountants - Fall semester only****3 s.h.**

*Prerequisite: 1498.242, Senior standing as a Business or Accounting major*

This course includes the study of the legal aspects of sales, liability, secured transactions, commercial paper and consumer credit.

**1498 Legal Processes (Management/MIS)****1498.242 Legal Environment of Business****3 s.h.**

*Prerequisite: Sophomore Standing*

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.

**1498.335 Legal Aspects of Human Resource Management****3 s.h.**

*Prerequisite: 0506.302, 1498.242*

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.

**1501 English Language (Writing Arts)****1501.105 Integrated College Composition****4 s.h.**

*Prerequisite: Appropriate placement score or fulfillment of developmental writing requirements*

This 4 credit intensive writing course provides work in essay organization, support, and mechanics. The course emphasizes the writing process and the development of writing skills. Students read and analyze the writing of professionals and peers. Completing this course fulfills the College Composition I writing requirement.

## COURSE DESCRIPTIONS

<b>1501.111 College Composition I</b>	<b>3 s.h.</b>
<i>Prerequisite: Appropriate placement score or fulfillment of developmental writing requirements</i>	
This course teaches students to write competent expository prose. It emphasizes the writing process, including prewriting, drafting and rewriting skills. Students write frequently, both in and out of class. Students also read and analyze the work of professionals and peers.	
<b>1501.112 College Composition II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.111 or 1501.105</i>	
College Composition II emphasizes critical thinking, reading, and writing as they relate to research and argumentation. Evaluation of information as well as exercises in critical thinking and research design build upon skills achieved in College Composition I. A major activity involves writing and documenting a research paper.	
<b>1501.301 Writing, Research &amp; Technology</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.111, 1501.112</i>	
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.	
<b>1501.302 Introduction to Technical Writing</b>	<b>3 s.h.</b>
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.	
<b>1501.320 Field Experience in Writing Arts</b>	<b>3 or 6 s.h.</b>
<i>Prerequisite: Junior/Senior status</i>	
Under professional supervision in the field, students practice theories and skills learned in the classroom.	
<b>1501.401 The Writer's Mind</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.111, 1501.112</i>	
The Writer's Mind examines the principles and practices that guide how writers think and develop creative, expository, and argumentative writing. This class addresses the connections and interdependencies between thinking about a complex topic and writing intelligibly. Students will examine how writing errors often reflect thinking errors, how writer's block develops, as well as strategies to overcome it, how metaphor functions in writing to structure thought, and how a writer's thought process matures over time.	
<b>1501.405 Evaluating Writing</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.111, 1501.112</i>	
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.	
<b>1501.410 Independent Study in Writing Arts Program</b>	<b>3 or 6 s.h.</b>
<i>Prerequisite: 60 hours completed</i>	
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.	

**1502 Literature, English****1502.101 Literary Studies****3 s.h.**

Designed specifically for English majors who have successfully completed Composition I, this course serves as an introduction to upper-level courses in the English Department. The course 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.

**1502.102 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, 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 be included. This course may not be offered annually.

**1502.105 Masterpieces of Western Literature I****3 s.h.**

This course gives the student some knowledge of and sensitivity to the literary sources of Western civilization. The course includes a limited number of works carefully selected from the beginnings of Western literature to the Reformation. Among them are selected books of The Old Testament, The Odyssey, Oedipus the King, The Aeneid, The New Testament, and The Inferno. This course may not be offered annually.

**1502.107 Masterpieces of Western Literature II****3 s.h.**

This course covers selected works from the Reformation through the nineteenth century, such as The Prince, Don Quixote, King Lear, Candide, Faust, Billy Budd, and Crime and Punishment. It emphasizes those works of great literary merit that exhibit perceptions, ideas, and values that have made essential and formative contributions to the development of Western civilization. This course may not be offered annually.

**1502.110 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.

**1502.113 Readings in U.S. Literature****3 s.h.**

This broad review of American literature concentrates on some of the most important writings of the nineteenth and twentieth centuries, emphasizing the diversity of the American experience and including a focus on the issues of race, class, and gender. This introductory course includes works by authors such as Emerson, Thoreau, Douglass, Poe, Hawthorne, Melville, Whitman, Dickinson, Chopin, Wharton, Fitzgerald, Hemingway, Hurston, Hughes, Ellison, Wright, Morrison, and more recent writers.

**1502.116 Readings in World Literature****3 s.h.**

Designed to give the student some knowledge of and sensitivity toward literature from around the world (exclusive of Europe and the United States), the course covers a limited number of ancient and modern works from Asia, the Near East, Africa, and Latin America. It emphasizes those perceptions, beliefs, and values that are different from ours.

**1502.123 Experiencing Literature****3 s.h.**

This course increases students' understanding and enjoyment of literature. By studying the major forms of literature—drama, novel, poetry, and short story—students will understand some of the distinguishing characteristics of each form, the special demands each form imposes upon the thoughtful reader, and some of the most useful ways to respond to these demands.

## COURSE DESCRIPTIONS

**1502.130 Mythology** **3 s.h.**

This course provides an overview of world mythologies, especially those of ancient Mediterranean culture, which have informed and inspired subsequent literature and literary themes. This course may not be offered annually.

**1502.150 Readings in Shakespeare** **3 s.h.**

A general education course, this class studies six to eight representative plays by Shakespeare, including examples of all four genres—comedy, tragedy, history, and romance. The course will consider closely character, theme, language, and theatrical values. This course may not be offered annually.

**1502.200 Women in Literature** **3 s.h.**

This course examines the aesthetic, historical, and social implications of a wide range of diverse texts written by women from medieval times to the present, examining the accomplishments of such significant women writers as Pizan, Murasaki, Wollstonecraft, Eliot, Jacobs, Wharton, Chopin, Woolf, Stein, Plath, Rich, Morrison, Lessing, and other more recent writers.

**1502.205 Adolescent Literature** **3 s.h.**

This course primarily deals with literature of various forms that is about adolescents and their concerns. The course also considers ways of presenting literature to adolescents. This course may not be offered annually.

**1502.210 British Literature to Romanticism** **3 s.h.**

Beginning with Beowulf and ending after Dr. Johnson, this intensive course traces the wealth and variety of a thousand years of poetry, drama, and prose beginning with the Anglo-Saxon epic, through the Middle Ages, the Renaissance, the Restoration, and on to the close of the Neoclassic period.

**1502.211 British Literature Since Romanticism** **3 s.h.**

Beginning with Wordsworth and ending in the present, 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 closely studies the relationship between literature and the specific social, political, and economic concerns it reflects.

**1502.213 US Literature to Realism** **3 s.h.**

This course surveys literature in the colonial, revolutionary, and early national periods and the first half of the nineteenth century. It emphasizes such writers as Edwards, Bradstreet, Franklin, Emerson, Thoreau, Poe, Douglass, Melville, Hawthorne, Dickinson, and Whitman.

**1502.215 US Literature Since Realism** **3 s.h.**

This survey highlights subjects such as the rise of realism and naturalism, the modernist revolution, and post-modernism. Twain, Howells, James, Chopin, Wharton, Hurston, Crane, Dreiser, and Frost are among the writers included. 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 O'Neill, Hemingway, Faulkner, Eliot, Stevens, Williams, Stein, Lowell, Barthelme, Barth, and Morrison.

**1502.216 Survey of African-American Literature** **3 s.h.**

This course surveys the development of African-American literature in all genres from the colonial period to the present time. Emphasis, however, is on the literature of the twentieth century, and special attention is given to such major Black writers as Chestnut, Hughes, Wright, Ellison, Baldwin, Morrison, Brooks, Hansbury, and Wilson. This course may not be offered annually.

**1502.217 U.S. Literature of Latino and Hispanic Peoples** **3 s.h.**

This course surveys the development of contemporary U.S. literature written in English by Latino and Hispanic writers. Reading selections include poems, personal essays, short fiction, novels, and drama. This course may not be offered annually.

**1502.228 The Modern Short Story****3 s.h.**

This course traces the development of the modern short story as a distinct form of literature. Students read and analyze stories by writers of various nationalities, and explore a wide range of themes and fictional techniques.

**1502.250 Shakespeare I****3 s.h.**

An introduction to Shakespearean drama, this course covers such early and middle plays as Richard III, The Merchant of Venice, Henry IV, As You Like It, and one major later tragedy-Othello. This course emphasizes such concerns as character, theme, style, language development, and the Elizabethan background.

**1502.301 Literary Study Off-Campus****3 s.h.**

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, theatres, writers' homes, and visits to the area's other important historical and cultural sites. Travel and program costs are borne by the students.

**1502.322 Literature of the American Renaissance****3 s.h.**

This course focuses on the literature of the American Renaissance (1830-1860). The 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.

**1502.327 Modern American Poetry****3 s.h.**

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.

**1502.330 Classical Literature in Translation****3 s.h.**

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.

**1502.350 Shakespeare II****3 s.h.**

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.

**1502.392 Independent Study (English)****3 s.h.**

*Prerequisite: A 'B' average in English courses, approval of the Chair and/or Dean of the College of Liberal Arts and Sciences*

The course gives students an opportunity to study independently in order to strengthen their background in a particular area of literary studies.

**1502.393 English Seminar I - Writing Intensive****3 s.h.**

*Prerequisite: 1502.101*

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.

**1502.394 English Seminar II - Writing Intensive****3 s.h.**

*Prerequisite: 1502.393*

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.

## COURSE DESCRIPTIONS

### **1502.410 Internship in English** 3 s.h.

*Prerequisite: completion of 75 s.h., a 3.0 GPA, approval of the internship coordinator*

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.

### **1502.421 The English Novel** 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.

### **1502.423 The American Novel** 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.

### **1502.424 American Dramatists** 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.

### **1502.425 Contemporary Fiction in the United States** 3 s.h.

This course focuses on American fiction from the end of World War II to the present. The study of works by writers such as Bellow, Ellison, Barth, Coover, Pynchon, Momaday, Morrison, Carver, Mason, and Tan will demonstrate the three major characteristics of the period: the persistence of an anti-modernist or realistic tradition, the emergence of a highly experimental anti-realistic, "post-modernist" movement, and the explosion of an iconoclastic and anti-hierarchical body of work dealing with issues pertinent to race and gender. This course may not be offered annually.

### **1502.430 Anglo-Saxon and Medieval Literature** 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.

### **1502.440 Chaucer** 3 s.h.

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.

### **1502.441 English Renaissance Literature** 3 s.h.

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.

### **1502.460 Restoration and 18th Century British Literature** 3 s.h.

This course studies poetry, non-fiction prose, and drama from 1660 to 1789. This course may not be offered annually.

**1502.471 English Romanticism****3 s.h.**

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.

**1502.472 Victorian Literature****3 s.h.**

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.

**1502.473 Twentieth Century British Literature****3 s.h.**

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.

**1502.482 Modern European Literature****3 s.h.**

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.

**1505 Linguistics (Communication Studies)****1505.280 Semantics****3 s.h.**

*Prerequisite: 30 hrs*

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.

**1505.281 Semantics-WI****3 s.h.**

*Prerequisite: 30 hrs*

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.

**1505.380 Linguistics****3 s.h.**

Students study the nature of human language by examining four major components: phonology, semantics, syntax, morphology. Linguistics principally emphasizes linguistic universals, characteristics which all human languages share. Students also discuss dialect formation, first-language acquisition in children, animal communication systems, and they compare modern linguistic theories.

**1505 Linguistics (English)****1505.301 American English Grammar****3 s.h.**

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.

**1505 Linguistics (Psychology)****1505.381 Psycholinguistics****3 s.h.***Prerequisite: 2001.104*

This course studies the psychology of language, covering such topics as language acquisition, production and comprehension of language, semantics, cultural effects on language and bilingualism as well as recent psychological and linguistic theories.

**1506 Speech Communication****1506.202 Public Speaking****3 s.h.***Prerequisite: 1501.112*

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.

**1506.205 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.

**1506.206 Interpersonal Communication****3 s.h.**

Students explore the basic theories and concepts of interpersonal communication research. Some areas to be covered include perception & 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).

**1506.245 Small Group Communication****3 s.h.**

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.

**1506.246 Small Group Communication-WI****3 s.h.**

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.

**1506.300 Advanced Public Speaking****3 s.h.***Prerequisite: 1506.102 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.

**1506.330 Communication Studies Research Methods****3 s.h.***Prerequisite: 0601.300*

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.

**1506.340 Argumentation and Debate****3 s.h.**

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.

**1506.406 Seminar in Communication Studies****3 s.h.***Prerequisite: Communication Studies specialization or permission of instructor*

Required of all Communication Studies majors, this course provides a seminar experience in areas of communication that are not part of the regular course offerings. Recent topics have included Family Communication, Gender Roles in the Media, and Rhetoric of Social Movements.

**1506.441 Rhetorical Criticism****3 s.h.***Prerequisite: 1506.202*

This course surveys ancient to modern theories of speech criticism in order 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.

**1506 Speech Communication-Theatre****1506.105 Voice and Articulation****3 s.h.**

This course introduces use of the vocal instrument. Students study the physical elements of correct breathing, resonance and articulation to aid them in the development of personal vocal ability. Phonetics are used as a descriptive tool for a better understanding of speech patterns. The course focuses upon improvement of students individual vocal effectiveness.

**1507 Creative Writing****1507.290 Creative Writing I****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.

**1507.291 Creative Writing II****3 s.h.**

Students continue to develop their voices as writers by working on the genre of their choice, either poetry or fiction, while also studying the one-act play. Class members experiment with realistic and expressionistic scenes, with theater-of-the-absurd techniques, and with dramatic monologues. Each student completes a one-act play and a project in either poetry or fiction.

**1507.309 Writing Children's Stories****3 s.h.***Prerequisite: 30 hours*

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.

**1507.391 Advanced Creative Writing****3 s.h.***Prerequisite: 1507.290 or 1507.291*

During this seminar-style course, students complete projects begun in 1507.291 or 1507.395. Class seminars discuss student writers' problems and possible solutions to them. Students learn the art of giving and receiving constructive criticism. Students continue to build on creative writing skills developed in earlier courses to produce a solid body of work in the genre under discussion. The focus on poetry or fiction alternates each semester.

**1507.395 Advanced Poetry Writing****3 s.h.***Prerequisite: 1507.290 or Permission of Instructor*

Students continue to develop skill in the art and craft of writing poetry, examining and writing in a variety of forms from the sonnet to the villanelle, the haiku to the sestina, experimenting with metered rhymes and blank verse. Each student produces a manuscript of original poetry, completes an intensive study of one poet's work and submits three poems to magazines for possible publication.

**1508 English as a Second Language****1508.110 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.

**1508.111 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.

**1508.112 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.

**1508.120 Advanced Academic English for Non-Native Speakers of English****9 s.h.**

*Prerequisite: Placement into course based on student's skills as determined by ESL faculty and director*  
 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.

**1509 Philosophy****1509.110 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.

**1509.120 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.

**1509.121 Introduction to Philosophy - WI****3 s.h.**

*Prerequisite: 1501.112*

Same as 1509.120, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

**1509.128 Philosophy and Gender****3 s.h.**

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.

**1509.129 Philosophy and Gender - WI****3 s.h.**

*Prerequisite: 1501.112*

Same as 1509.128, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

**1509.130 Introduction to Symbolic Logic****3 s.h.**

This course provides students with a working familiarity with the principles and procedures involved in deductive logic.

<b>1509.220 Survey of Western Philosophy</b>	<b>3 s.h.</b>
This course acquaints students with some of the major figures and ideas in the history of Western philosophy.	
<b>1509.221 Survey of Western Philosophy - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.112</i>	
Same as 1509.220, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.	
<b>1509.226 Philosophy of Mind</b>	<b>3 s.h.</b>
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.	
<b>1509.227 Philosophy of Mind - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.112</i>	
Same as 1509.226, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.	
<b>1509.230 Symbolic Logic</b>	<b>3 s.h.</b>
<i>Prerequisite: 1509.130 or consent of the instructor</i>	
This advanced course in symbolic logic studies both sentential and quantificational techniques as well as the completeness and consistency of systems of natural deduction.	
<b>1509.240 Philosophy and Society</b>	<b>3 s.h.</b>
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.	
<b>1509.241 Philosophy and Society - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.112</i>	
Same as 1509.240, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.	
<b>1509.250 Introduction to Ethics</b>	<b>3 s.h.</b>
This historically structured course emphasizes both the nature of moral problems and the variety and adequacy of selected moral theories.	
<b>1509.251 Introduction to Ethics - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.112</i>	
Same as 1509.250, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.	
<b>1509.310 Aesthetics</b>	<b>3 s.h.</b>
This course offers students an approach to such philosophical issues as the nature of art; 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, and to philosophical texts in aesthetics.	
<b>1509.311 Aesthetics - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: 1501.112</i>	
Same as 1509.310, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.	
<b>1509.322 Business Ethics</b>	<b>3 s.h.</b>
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.	

## COURSE DESCRIPTIONS

### **1509.325 American Philosophy**

**3 s.h.**

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 Pierce, William James and John Dewey.

### **1509.330 Asian Thought**

**3 s.h.**

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.

### **1509.368 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 structure and function of scientific theories, and the confirmation of scientific hypothesis are among the issues treated.

### **1509.369 Philosophy of Science - WI**

**3 s.h.**

*Prerequisite: 1501.112*

Same as 1509.368, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

### **1509.370 Epistemology**

**3 s.h.**

*Prerequisite: Any course in philosophy*

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.

### **1509.371 Epistemology- WI**

**3 s.h.**

*Prerequisite: Any course in philosophy*

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.

### **1509.392 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, nuclear war and deterrence, and computers and to such professions as medicine, nursing, business, education and law.

### **1509.393 Contemporary Moral Problems- WI**

**3 s.h.**

*Prerequisite: 1501.112*

Same as 1509.392, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

### **1509.440 Selected Topics in Philosophy**

**3 s.h.**

*Prerequisite: Consent of the Instructor*

This course enables students to synthesize previous work in philosophy and to connect that work more directly with their academic majors.

**1510 Religion****1510.100 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.

**1510.110 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.

**1510.200 Religions of the World****3 s.h.**

This course surveys the major world religions in both the Eastern and Western traditions.

**1510.203 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.

**1510.210 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.

**1510.220 Introduction to Buddhism****3 s.h.**

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.

**1510.300 Philosophy of Religion****3 s.h.**

This course investigates such basic problems as the nature of religious language, the possibility of religious knowledge, revelation, the nature of religious experience, the concept of God, the relation of religion and morality and the role of religion in modern society.

**1510.328 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.

**1510.340 Selected Topics in Religion Studies****3 s.h.**

*Prerequisite: 1510.100 or 1510.200 or permission of the instructor*

This course examines one topic in religion in depth. Its topic may vary. This course may not be offered annually.

**1701 Mathematics****1701.096 Basic Algebra****3 s.h.**

This full semester basic skills course includes signed numbers, first degree equations, factoring, exponents, roots and radicals, rational expressions, systems of equations and graphing. The 3.0 hours of credit granted for it do not apply toward graduation. Use of calculator is required.

**1701.115 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 and Basic Skills Reading.

**1701.121 Intermediate Algebra****3 s.h.**

This course emphasizes the basic algebraic skills and techniques used in business and social sciences. It will prepare students to take science and mathematics courses in the general education bank. Topics included are a review of algebra, solutions of linear, rational and quadratic functions, exponential notions, relations and functions, graphs, and determinants. Use of a calculator is required. Students are expected to have completed the equivalent of Basic Algebra.

**1701.122 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 Intermediate Algebra.

**1701.123 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 Intermediate Algebra or its equivalent.

**1701.130 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 computer software, such as Mathematica. Students are expected to have completed an equivalent of Precalculus.

**1701.131 Calculus II****4 s.h.**

*Prerequisite: 1701.130, 1703.150*

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.

**1701.180 Introduction to the Foundations of Mathematics****3 s.h.**

*Prerequisite: registration by invitation only*

This is a lower level general education honors 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, the concept of infinity and proof. The course requirement includes a major essay.

**1701.201 Structures of Mathematics****3 s.h.**

This course concerns the development of number systems and algebraic structures, including the natural numbers, the integers, rational numbers, real and complex numbers. Concrete examples of selected algebraic structures such as modular arithmetic and matrices are also 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. (Students are expected to have completed an equivalent of Intermediate Algebra.)

**1701.202 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 Intermediate Algebra.

**1701.205 Technological Tools for Discovering Mathematics** **2 s.h.**

*Prerequisite: 0701.102, 1701.130 or permission of instructor*

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.

**1701.210 Linear Algebra** **3 s.h.**

*Prerequisite: 1701.131, 1703.150 or permission of instructor*

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.

**1701.230 Calculus III** **4 s.h.**

*Prerequisite: 1701.131*

This course includes: polar coordinates and parametric equations, vectors, vector functions, velocity, acceleration, partial differentiation, directional derivatives, and multiple integration. The student is expected to use computer software, such as Mathematica, in addition to the graphing calculator.

**1701.231 Ordinary Differential Equations** **3 s.h.**

*Prerequisite: 1701.230, 1701.210*

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.

**1701.235 Mathematics for Engineering Analysis I** **4 s.h.**

*Prerequisite: 1701.131*

This course gives a comprehensive introduction to functions of several variables, linear algebra, vector calculus and ordinary differential equations. It includes partial derivatives, double integrals, matrices, matrix operations, eigenvalues and eigenvectors, dot and cross products, divergence, curl, first order ordinary differential equations and numerical methods. A computer algebra system such as Mathematica is required.

**1701.236 Mathematics for Engineering Analysis II** **4 s.h.**

*Prerequisite: 1701.235*

This course is a continuation of Mathematics for Engineering Analysis I. Methods for solving second- order ordinary differential equations and systems of first- order equations are discussed, including the Laplace transform. Methods for solving partial differential equations are also studied. A computer algebra system such as Mathematica is required.

**1701.310 College Geometry** **4 s.h.**

*Prerequisite: 1701.130, 1701.210, 1509.130*

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.

**1701.330 Introduction to Real Analysis I** 4 s.h.*Prerequisite: 1701.230 or the equivalent*

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.

**1701.331 Introduction to Real Analysis II** 3 s.h.*Prerequisite: 1701.330*

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.

**1701.332 Numerical Analysis** 3 s.h.*Prerequisite: 1701.210, 1701.131 (or concurrently), prior computer programming experience*

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.

**1701.340 Modern Algebra I** 3 s.h.*Prerequisite: 1701.210, 1509.130*

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.

**1701.341 Modern Algebra II** 3 s.h.*Prerequisite: 1701.340*

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.

**1701.352 Theory of Numbers** 3 s.h.

*(For Mathematics majors; open to others with permission; background in abstract or linear algebra is recommended.)*

This course includes divisibility properties of integers, theory of congruence, Diophantine Analysis, congruences of higher degree, quadratic residues and famous problems of number theory.

**1701.354 Introduction to Topology** 3 s.h.*Prerequisite: 1701.330*

This course covers the properties of general topological spaces, separation, compactness, connectedness and the Heine-Borel and Bolzano-Weierstrass theorems.

**1701.386 Introduction to Partial Differential Equations** 3 s.h.*Prerequisite: 1701.231*

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.

**1701.410 History of Mathematics** 3 s.h.*Prerequisite: 1701.131*

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.

**1701.421 Mathematics Field Experience****3 s.h.***Prerequisite: 1701.131, 1702.360*

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.

**1701.430 Introduction to Complex Analysis****3 s.h.***Prerequisite: 1701.330*

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.

**1701.499 Mathematics Seminar****3 s.h.**

*Prerequisite: Senior standing and successful completion of 1701.340, 1701.231, 1701.330, one of the following courses: 1701.310 or 1702.360 (Implemented Fall 2003)*

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 foundations. Additionally, each student is required to write and to present orally a research report on a mathematical topic. Effective Fall 2004

## **1702 Statistics**

**1702.100 Elementary Statistics****3 s.h.**

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 statistic course; students should check their major requirements before signing up for this course.

**1702.260 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.

**1702.261 Statistics II****3 s.h.***Prerequisite: 1702.260*

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.

**1702.280 Biometry****4 s.h.***Prerequisite: 1701.130, 0401.100, and 0401.101*

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.

## COURSE DESCRIPTIONS

<b>1702.360 Introduction to Probability and Statistics I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1701.131, 1701.150 or permission of instructor</i>	
An introduction to the theory and application of mathematical statistics at the post-calculus level. After a brief introduction to the concepts of descriptive statistics, the emphasis is on probability theory and its applications. Topics covered include sample spaces, random variables, discrete and continuous probability distributions, mathematical expectation and multivariate distributions. Use of a graphing calculator is required.	
<b>1702.361 Introduction to Probability and Statistics II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1702.360</i>	
A continuation of Introduction to Probability & Statistics I, 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.	
<b>1702.371 Statistical Design of Experiments I</b>	<b>3 s.h.</b>
<i>Prerequisite: 1702.360, 1702.361 or Statistical Research Methods in Psychology I and II</i>	
Students will gain an understanding of the major theoretical and practical concepts in the statistical design of experiments. The relevance of statistical experimental design to all experimentation will be presented in a highly applied manner. Students will be exposed to a variety of applications from a wide range of subject areas. Students will learn how to use the statistical design of experiments to obtain the maximum information with a minimum number of experimental trials for any type of experimentation or data collection. Examples from business, social and physical sciences and engineering will be used to illustrate concepts.	
<b>1702.372 Statistical Design of Experiments II</b>	<b>3 s.h.</b>
<i>Prerequisite: 1702.371</i>	
Students will be exposed to advanced techniques and theories in statistical design of experiments. Applications from a wide variety of disciplines will be considered in detail. Students will learn the theoretical aspects of statistical design as well as the application of complex techniques to realistic situations. Optimization of experimental design techniques will also be covered.	
<b>1703 Applied Mathematics</b>	
<b>1703.125 Calculus: Techniques and Applications</b>	<b>3 s.h.</b>
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.	
<b>1703.150 Discrete Mathematics</b>	<b>3 s.h.</b>
<i>Corequisite: 1509.130, 1701.122</i>	
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.	
<b>1703.160 Discrete Structures</b>	<b>3 s.h.</b>
<i>Prerequisite: 1701.122 or permission of the department of mathematics or permission of the department of computer science</i>	
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 graph-	

ing calculator and/or computer. This course covers much of the same material as Discrete Mathematics (1703.150), 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.

**1703.305 Patterns in Nature I: Visual Geometry****3 s.h.**

*Prerequisite: 0701.102, 1702.260, 0401.105, 1905.102, 1902.150*

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.

**1703.400 Applications of Mathematics****3 s.h.**

*Prerequisite: 1701.230, 1701.210*

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.

**1703.411 Deterministic Models in Operations Research****3 s.h.**

*Prerequisite: Either 1701.230, 1701.210 or 1701.235 or permission of the instructor*

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.

**1703.412 Stochastic Models in Operations Research****3 s.h.**

*Prerequisite: 1702.360, one of the following: 1703.411 or 1701.230, 1701.210 or 1701.235 or Permission of the instructor*

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.

**1703.510 Mathematical Modeling & Algebraic Reasoning****3 s.h.**

*Prerequisite: Undergraduate degree in elementary education or elementary teaching certificate,*

Students in this course will learn about polynomial, rational, and exponential functions by building and analyzing mathematical models for a variety of situations. Using algebraic representations, problem solving, using technology, connecting abstract algebra with middle grades mathematics, and fluency with algebraic procedures will be stressed.

**1801 Military Science (R.O.T.C.)****1801.101 Basic Leadership Laboratory/Practicum****0 s.h.**

Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (No service obligation.)

**1801.102 Basic Leadership Laboratory/Practicum****0 s.h.**

Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (No service obligation.)

## COURSE DESCRIPTIONS

<b>1801.110 Leadership and Personal Development</b>	<b>3 s.h.</b>
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).	
<b>1801.120 Foundations in Leadership</b>	<b>3 s.h.</b>
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).	
<b>1801.201 Basic Leadership Laboratory/Practicum</b>	<b>0 s.h.</b>
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (No service obligation.)	
<b>1801.202 Basic Leadership Laboratory/Practicum</b>	<b>0 s.h.</b>
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (No service obligation.)	
<b>1801.210 Innovative Tactical Leadership</b>	<b>3 s.h.</b>
<i>Prerequisites: 1801.110 or 1801.120 with Minimum Grade B, or by permission of Academic Department Chair</i>	
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).	
<b>1801.220 Leadership in Changing Environments</b>	<b>3 s.h.</b>
<i>Prerequisites: All 1801.210 pre-requisites and 1801.210 Minimum Grade B; or by permission of Academic Department Chair</i>	
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).	
<b>1801.301 Advanced Leadership Laboratory/Practicum</b>	<b>0 s.h.</b>
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills. (Service obligation upon enrollment in 1801.310 and 1801.301.)	
<b>1801.302 Advanced Leadership Laboratory/Practicum</b>	<b>0 s.h.</b>
Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills.	
<b>1801.310 Leadership in Contact</b>	<b>3 s.h.</b>
<i>Prerequisites: 1801.101, 1801.102, 1801.201, 1801.202; or completion of US Army Leadership Training Course [6 week program offered during summer of sophomore year]; or completion of US Army Basic Training and Advanced Individual Training. Students also required to enroll in 1801.301</i>	
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 1801.310.)	

**1801.320 Complex Team Leadership Issues** **3 s.h.**

*Prerequisites: all 1801.310 prerequisites, enrollment in 1801.320, and 1801.310 minimum grade of B*  
 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.

**1801.401 Senior Leadership Laboratory/Practicum** **0 s.h.**

Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills.

**1801.402 Senior Leadership Laboratory/Practicum** **0 s.h.**

Provides hands-on experience to reinforce leadership fundamentals, while emphasizing increased awareness of and proficiency in military skills.

**1801.410 Developing Adaptive Leaders** **3 s.h.**

*Prerequisites: 1801.310, 1801.320 and 1801.320 minimum grade of B; and successful completion of US Army Cadet Command Leadership Development and Assessment Course (LDAC), 6-week program during summer of junior year. Student also required to enroll in 1801.401*

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.

**1801.420 Leadership in the Contemporary Operating Environment of the 21<sup>st</sup> Century** **3 s.h.**

*Prerequisites: 1801.410 and 1801.410 minimum grade of B, and enrollment in 1801.420*

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.

**1901 Physical Sciences, General****1901.110 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.

**1901.310 Independent Study (Physical Sciences)** **1-3 s.h.**

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.

**1902 Physics****1902.120 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.

## COURSE DESCRIPTIONS

**1902.140 The Physics of Current Technologies (Lecture and Lab) 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.

**1902.150 Physics of Everyday Life (Lecture and Lab) 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.

**1902.175 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.

**1902.200 Physics I (For scientists and engineers - Lecture and Lab) 4 s.h.**  
*Prerequisite: 1701.130*  
This course studies the basic principles of mechanics, heat, and waves. It emphasizes problem work. This is a required course for Physics, Chemistry, Physical Science, and Engineering students.

**1902.201 Physics II (For scientists and engineers - Lecture and Lab) 4 s.h.**  
*Prerequisite: 1902.200, 1701.131*  
This course studies the basic principles of electricity, magnetism, and light. It emphasizes problem work. This is a required course for Physics, Chemistry, Physical Science, and Engineering students.

**1902.202 Physics I (For the life sciences - Lecture and Lab) 4 s.h.**  
*Prerequisite: 1701.121 or Equivalent*  
This course covers the same topics as 1902.200. Calculus is not used. The course emphasizes problem work involving the use of Algebra and Geometry.

**1902.203 Physics II (For the life sciences - Lecture and Lab) 4 s.h.**  
*Prerequisite: 1902.202 or 1902.200*  
This course covers the same topics as 1902.201. Calculus is not used. It emphasizes problem work involving the use of Algebra and Geometry.

**1902.211 Physics Research I 1-3 s.h.**  
*Prerequisite: faculty approval*  
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.

**1902.212 Physics Research II 1-3 s.h.**  
*Prerequisite: faculty approval*  
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.

**1902.300 Modern Physics (Lecture and Lab)****4 s.h.***Prerequisite: 1701.131, 1902.201 or 1902.203 or permission of instructor*

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.

**1902.305 Optics and Light (Lecture and Lab)****4 s.h.***Prerequisite: 1701.131, 1902.201 or 1902.203 or permission of instructor*

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.

**1902.311 Physics Research III****1-3 s.h.***Prerequisite: faculty approval*

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.

**1902.315 Analytical Mechanics (Lecture Only)****4 s.h.***Prerequisite: 1701.131, 1902.200*

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.

**1902.325 Mathematical Physics (Lecture Only)****3 s.h.***Prerequisite: 1701.131, 1902.201 or 1902.203 or permission of instructor*

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.

**1902.387 Statistical Physics****3 s.h.***Prerequisite: 1902.201 or 1902.203, 1701.131*

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.

**1902.399 Electric Circuits (Lecture and Lab)****4 s.h.***Prerequisite: 1701.131, 1902.201 or 1902.203*

This course provides an analytic study of electric circuit theory and methods of single phase and polyphase circuit analysis. Intended for Pre-engineering and Physical Sciences majors. Problem work is emphasized. This course may not be offered annually.

**1902.401 Quantum Mechanics I****4 s.h.***Prerequisite: 1902.300 or permission of instructor*

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.

**1902.402 Quantum Mechanics II** 3 s.h.*Prerequisite: 1902.401 or permission of instructor*

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.

**1902.411 Physics Research IV** 1-3 s.h.*Prerequisite: faculty approval*

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.

**1902.430 Electricity and Magnetism I** 4 s.h.*Prerequisite: 1902.201 or 1902.203*

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.

**1902.431 Electricity and Magnetism II** 3 s.h.*Prerequisite: 1902.310*

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.

**1902.440 Advanced Laboratory** 4 s.h.*Prerequisite: 1902.300*

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.

**1902.470 Selected Topics in Advanced Physics** 3-4 s.h.*Prerequisite: 1902.300, 1902.325 or 1701.236 or 1701.231 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.

**1905 Chemistry, General****1905.100 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.

**1905.102 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 1906.101

**1905.301 Chemistry in the Environment****3 s.h.***Prerequisite: 1703.305*

This course presents the fundamentals of chemistry and shows how they can be applied to the environment. This course is offered once a year and is intended for Liberal Studies Math/Science majors.

**1905.350 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.

**1905.430 Advanced Topics in Chemistry****3 s.h.***Prerequisite: Permission of Instructor*

This course covers special topics in individual areas of chemistry. Specific prerequisites are determined by the nature of the course when it is announced.

**1905.435 Cooperative Experience in Chemistry****3 s.h.***Prerequisite: permission required*

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.

**1905.440 Research I****3 s.h.***Prerequisite: Permission of Department Chair*

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.

**1905.441 Research II****3 s.h.***Prerequisite: 1905.440*

This course is a continuation of 1905.440.

**1905.450 Seminar I****1 s.h.***Prerequisite: senior standing*

In this course students give oral reports on topics chosen from the current chemical literature. Students must attend local professional meetings.

**1905.451 Seminar II****1 s.h.**

This course is a continuation of 1905.450. This course may not be offered annually.

**1906 Inorganic Chemistry****1906.100 Chemistry I (Lecture and Lab)****4 s.h.**

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.

**1906.101 Chemistry II (Lecture and Lab)****4 s.h.***Prerequisite: 1906.100*

This course is a continuation of 1906.100. It covers these topics: equilibria, including acids and bases, complexes, and sparingly soluble compounds, thermodynamics, kinetics, electrochemistry, and solution theory. Descriptive inorganic chemistry is also covered.

## COURSE DESCRIPTIONS

**1906.105 Advanced College Chemistry I** 4 s.h.  
*Prerequisite: High school pre-calculus or calculus, one year minimum of high school chemistry and physics*  
This course is designed for the engineering student and other well-prepared science majors. The course will deal with the macroscopic world, covering such topics as states of matter, solutions, thermodynamics, gas phase equilibria and solution equilibria of weak acids, bases and buffers.

**1906.106 Advanced College Chemistry II** 4 s.h.  
*Prerequisite: 1906.105*  
This course is designed for the engineering student and other well-prepared science majors. The course deals with the submicroscopic world, emphasizing atomic structure and molecular structure and bonding and crystal structure. Included also is work in material science, electrochemistry, kinetics, descriptive chemistry and selected industrial applications.

**1906.300 Advanced Inorganic Chemistry** 4 s.h.  
*Prerequisite: 1908.400*  
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.

## 1907 Organic Chemistry

**1907.200 Organic Chemistry I (Lecture and Lab)** 4 s.h.  
*Prerequisite: 1906.101 or 1906.106*  
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.

**1907.201 Organic Chemistry II (Lecture and Lab)** 4 s.h.  
*Prerequisite: 1906.101 or 1906.106, 1907.200*  
This course is a continuation of 1907.200. Required for science majors.

**1907.348 Biochemistry (Lecture and Lab)** 4 s.h.  
*Prerequisite: 1907.201*  
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.

**1907.405 Introduction to Polymer Chemistry** 3 s.h.  
*Prerequisite: 1907.200*  
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.

**1907.408 Advanced Biochemistry** 4 s.h.  
*Prerequisite: 1907.348*  
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.

**1907.410 Medicinal Chemistry****3 s.h.***Prerequisite: 1907.201*

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.

**1907.464 Advanced Organic Chemistry I (Lecture) - WI****3 s.h.***Prerequisite: 1907.201, 1908.400*

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.

**1907.466 Advanced Organic Chemistry II (Lecture)****3 s.h.***Prerequisite: 1907.464, 1908.401*

This is a continuation of 1907.464. It examines classes of compounds and reactions not presented in 1907.464. This course is not offered annually.

**1907.470 Organic Spectroscopic Analysis (Lecture and Lab)****4 s.h.***Prerequisite: 1907.201, 1909.250*

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.

**1907.475 Polymer Synthesis****4 s.h.***Prerequisite: 1907.201, 1908.400*

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.

**1907.478 Polymer Characterization****4 s.h.***Prerequisite: 1907.201, 1908.400*

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.

**1908 Physical Chemistry****1908.305 Biophysical Chemistry****4 s.h.***Prerequisite: 1907.201, 1701.131, 1902.201, 1909.250, 0401.101*

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.

**1908.400 Physical Chemistry I (Lecture)****3 s.h.***Prerequisite: 1701.131, 1902.201 or 1902.203 or 0906.302*

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. 1701.230 recommended.

## COURSE DESCRIPTIONS

<b>1908.401 Physical Chemistry II (Lecture)</b>	<b>3 s.h.</b>
<i>Prerequisite: 1908.400</i>	
This is a continuation of 1908.400.	
<b>1908.402 Physical Chemistry Laboratory I</b>	<b>2 s.h.</b>
<i>Prerequisite: enrollment in 1908.400, 1909.250</i>	
Laboratory work in this course is designed to illustrate the principles of physical chemistry.	
<b>1908.403 Physical Chemistry Laboratory II</b>	<b>2 s.h.</b>
<i>Prerequisite: enrollment in 1908.401</i>	
This course is a continuation of 1908.402.	
<b>1909 Analytical Chemistry</b>	
<b>1909.250 Quantitative Analysis (Lecture and Lab)</b>	<b>4 s.h.</b>
<i>Prerequisite: 1906.101 or 1906.106</i>	
This course provides lecture and laboratory experience in classical methods of gravimetric and volumetric analyses as well as electrical and spectroscopic analyses.	
<b>1909.410 Instrumental Methods (Lecture and Lab)</b>	<b>4 s.h.</b>
<i>Prerequisite: 1909.250, 1908.401</i>	
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.	
<b>1911 Astronomy</b>	
<b>1911.120 Introduction to Astronomy (Lecture and Lab)</b>	<b>4 s.h.</b>
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, nebulæ, 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.	
<b>1911.209 Astronomy Research I</b>	<b>1-3 s.h.</b>
<i>Prerequisite: Faculty approval</i>	
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.	
<b>1911.212 Astronomy Research II</b>	<b>1-3 s.h.</b>
<i>Prerequisite: Faculty approval</i>	
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.	
<b>1911.221 Exploration of the Solar System</b>	<b>3 s.h.</b>
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.	

**1911.231 Methods and Techniques in Modern Astronomy (Lecture and Lab)****4 s.h.***Prerequisite: 1701.122 or permission of instructor*

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.

**1911.241 Astronomy and Astrophysics (Lecture and Lab)****4 s.h.***Prerequisite: 1701.130 or permission of instructor*

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.

**1911.312 Astronomy Research III****1-3 s.h.***Prerequisite: Faculty approval*

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.

**1911.412 Astronomy Research IV****1-3 s.h.***Prerequisite: Faculty approval*

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.

**1913 Atmospheric Sciences and Meteorology****1913.101 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.

**1914 Geology****1914.440 Tidal Marsh Sedimentation****2 s.h.***Prerequisite: Advanced standing in geo-science including a course in sedimentology*

This course examines the processes involved in sediment transport and deposition within the marsh system and studies the geologic history of tidal marshes. Offered summers only at the facilities of the New Jersey Marine Sciences Consortium.

**1917 Earth Sciences****1917.110 Principles of Earth Science****3 s.h.**

This course examines the basic concepts of astronomy, meteorology, geology and the principles derived from those concepts.

**1919 Oceanography****1919.110 Introduction to Marine Sciences****4 s.h.***(Field Trip required)*

This field oriented course covers the principal disciplines in the marine sciences. The course allows students to evaluate their interest in the marine science world. Offered in the summer at the New Jersey Marine Sciences Consortium facilities.

**1919.228 Introduction to Physical Oceanography****3 s.h.***(Lab work and field trip required)*

This course surveys modern oceanography and its methods including: characteristics of sea water; theories of ocean currents in general; applications of biological, geological, physical, meteorological and engineering sciences to the study of the oceans. Offered in the summer at the New Jersey Marine Sciences Consortium facilities.

**1919.300 Introduction to Oceanography****3 s.h.***Prerequisite: one course in Geology or Earth Science, a course in Chemistry*

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.

**1919.305 Oceanography****4 s.h.***Prerequisite: Advanced standing in one of the sciences*

This course studies the physical and chemical properties of sea water, geological and biological aspects of the oceans and their interrelationships. Offered only in the summer at the New Jersey Marine Sciences Consortium facilities.

**1919.310 Dynamic Beach Processes****1 s.h.***Prerequisite: 1919.300 or 1919.428 or permission of instructor*

A one week field study of beach processes along the New Jersey shore. Offered only in the summer at the New Jersey Marine Sciences Consortium field station.

**1919.414 Field Methods in Marine Sciences****4 s.h.***Prerequisite: senior standing in science*

This course studies the application and techniques of marine sampling, including those of physics, meteorology, chemistry, geology, and biology. It stresses the nature and role of various pieces of equipment. This course is offered only in the summer at the New Jersey Marine Sciences Consortium facilities.

**1919.425 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.

**1919.430 Chemical Oceanography****4 s.h.***Prerequisite: 1919.428 or 1919.300 or permission of instructor**(Field work and Laboratory required)*

This course studies the properties and interactions of the chemical substances present in the marine environment, including their reactions at the air-sea and sea-bottom interfaces. Offered at the New Jersey Marine Sciences Consortium field station.

**1919.487 Marine Fossils of New Jersey Coastal Plain****1 s.h.***Prerequisite: permission of instructor*

This course seeks to interpret the marine fossil record to determine ancient environmental conditions in New Jersey's coastal plain. Offered at the New Jersey Marine Sciences Consortium field station.

**2001 Psychology, General****2001.100 Introduction to Psychology: Personal, Emotional, and Social Interactions 3 s.h.**

Students will be introduced to the study of psychology as it pertains to personal, emotional, and social interactions. This will include such topics as personality development and measurement, psychological disorders and treatment, emotional and social development, and social influences on behavior.

**2001.103 Experiences in Humanistic Psychology 3 s.h.**

This course provides students with a formal approach to personal growth. Structured experiences, readings, and discussions enable students to become more aware and accepting of their behavior, aids them in becoming centered and integrated and teaches them methods of becoming more responsible, caring people. It draws theoretical content and applied techniques from Skinner, Perls, Freud, Jung, Rogers, Berne, Reich, Maslow and from eastern philosophy.

**2001.104 Introduction to Psychology: Brain, Mind, and Behavior 3 s.h.**

Students will be introduced to the study of psychology which focuses on the physiological mechanisms of behavior, conditioning of behavior, memory, cognitive development and skills, and prenatal development.

**2001.105 The Psychology of Ethnic Identity & Community in America 3 s.h.**

*Prerequisite: 2001.100*

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.

**2001.200 Psychology of Women & Cultural Experience 3 s.h.**

*Prerequisite: 2001.100*

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.

**2001.202 Combating Violence Against Children 3 s.h.**

In this course students study the causes and consequences of many types of child maltreatment. The course focuses on the family and societal conditions associated with child abuse and neglect, strategies for prevention, intervention and treatment of victims and the roles and responsibilities of New Jersey citizens in the reporting of suspected cases of child abuse.

**2001.230 Psychology of Personality 3 s.h.**

*Prerequisite: 2001.100*

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.

**2001.235 African American Psychology 3 s.h.**

*Prerequisite: 2001.100*

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.

## COURSE DESCRIPTIONS

### **2001.302 Research in Perception - WI**

**3 s.h.**

*Prerequisite: Matriculation as a psychology major, 2001.104, 2007.312 or 2007.210, 1501.112*

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, after-effects, 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.

### **2001.305 Psychology and Law**

**3 s.h.**

*Prerequisite: 2001.100 or permission of instructor*

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.

### **2001.310 Psychology of Racism and Ethnocentrism: Causes, Development, Consequences, Solutions**

**3 s.h.**

*Prerequisite: 2001.100*

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.

### **2001.315 Research in Child Development- WI**

**3 s.h.**

*Prerequisite: 2001.100 or 2001.104, 2007.312 or 2007.210, matriculation as a psychology major, 1501.112*

The content of this course includes the physical, cognitive, perceptual, linguistic, emotional, and social development of the child. Both the stages of development (biological and/or sociocultural) are emphasized. A laboratory component is appended to the course, but does not fulfill General Education laboratory requirements.

### **2001.316 Behavioral Assessment and Measurement**

**3 s.h.**

*Prerequisite: 2001.104*

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.

### **2001.326 Perception**

**3 s.h.**

*Prerequisite: 2001.104*

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, after-effects, illusions and space perception.

### **2001.327 Cognitive Psychology**

**3 s.h.**

*Prerequisite: 2001.104*

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.

**2001.419 Independent Study in Psychology** **3-6 s.h.***Prerequisite: 2001.100, 2001.104, permission of instructor*

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.

**2001.420 Advanced Research** **3 s.h.***Prerequisite: 2007.311, 2007.312 or 2001.100, 2001.104, 2007.210*

Students must have completed Statistics and Research Methods in Psychology. Students must have substantial preparation in the area in which the research is to be done. A formal research paper and a pre-enrollment consultation with the instructor are required.

**2001.422 Field Experiences in Psychology** **3-6 s.h.***Prerequisite: 2001.100, 2001.104, student/instructor conference required*

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.

**2001.423 Seminar in Psychology: Topics** **3 s.h.***Prerequisite: 2001.100, 2001.104*

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.

**2001.429 History & Systems in Psychology** **3 s.h.***Prerequisite: 2001.100, 2001.104, junior standing*

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.

## **2002 Experimental**

**2002.305 Applied Behavior Analysis** **3 s.h.***Prerequisite: 2001.104*

This course deals with the principles, procedures and utility of behavior modification in normal and clinical settings.

**2002.306 Research in Adolescent Development - WI** **4 s.h.***Prerequisite: 2001.104, 2007.312 or 2007.210, matriculation as a psychology major, 1501.112*

This course provides an overview of the physical, cognitive, social, moral, and sexual development of adolescents. Topics may include Piaget's stages of cognitive development, Kohlberg's theory of moral development, self concept and self-esteem, gender roles, and problems adolescents face. This course contains a laboratory component which emphasizes the use of the scientific method in adolescent development. Only matriculated psychology majors may register for this course.

**2002.307 Research in Cognitive Psychology - WI** **4 s.h.***Prerequisite: 2001.104, 2007.312 or 2007.210, matriculation as a psychology major, 1501.112*

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.

## COURSE DESCRIPTIONS

### **2002.308 Research in Learning and Behaviorism - WI                          4 s.h.**

*Prerequisite: 1501.112, 2001.104, 2007.312 or 2007.210, matriculation as a psychology major*

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.

### **2002.309 Research in Social Psychology - WI                          4 s.h.**

*Prerequisite: 1501.112, 2001.100 or 2001.104, 2007.210 or 2007.312, matriculation as a psychology major*

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.

## **2003 Clinical Psychology**

### **2003.200 Abnormal Psychology                          3 s.h.**

*Prerequisite: 2001.100 or 2001.104*

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.

### **2003.205 Intake and Interviewing Skills in Psychology                          3 s.h.**

*Prerequisite: 2001.100*

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.

## **2005 Social Psychology**

### **2005.125 Introduction to Psychological Study of Alcoholism/Drug Abuse                          3 s.h.**

This introductory course is designed to provide the student with basic alcoholism/drug abuse knowledge. Information covered will concern alcoholism/drug use community resources and social agency networks, legal and ethical issues in treatment and research, and prevention programming. The course is designed to provide the foundation for the consideration in the other four courses of family and life stage issues in addiction, and psychological treatment and counseling strategies. The course is designed to provide an overview of psychological issues underlying addiction. It is assumed that the information conveyed in this course would be pertinent to parents of adolescents, citizens who wish to combat alcoholism/drug abuse, and undergraduates who wish to enter helping professions.

### **2005.205 Environmental Psychology                          3 s.h.**

*Prerequisite: 2001.100 or 2001.104*

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.

**2005.206 Social Psychology****3 s.h.***Prerequisite: 2001.100*

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.

**2005.215 The Psychology of the Adolescent Alcoholic/Drug Abuser****3 s.h.***Prerequisite: 2005.125*

This course is designed to focus particular attention on the adolescent addict. General recognition of adolescence as a critical period for drug involvement has developed among most helping professions. Special knowledge of the issues raised by adolescent addiction is critical for appropriate prevention and intervention with this age group. Underlying this course is the assumption that adolescent drug abuse is a significant social and psychological problem calling for careful and thorough study by helping professionals and concerned citizens. Adolescent drug use is discussed in the context of underlying developmental needs and stage-specific tasks.

**2005.217 The Psychology of Gender and Alcoholism/Drug Abuse****3 s.h.**

Issues addressed in this course include differential patterns of male and female drug/alcohol use and abuse, the role of gender and addiction in family dysfunction, the psychological consequences of addiction specific to gender roles and behavior, the role of drug/alcohol abuse in dating and domestic violence, and gender issues in alcohol and/or drug addiction treatment and prevention.

**2005.250 Psychopharmacology****4 s.h.***Prerequisite: 2001.104 or permission of instructor*

Topics covered in this course include the nature of drugs, interaction effects, attitudes toward drugs, their definition, legal categories, consequences of drug interactions for impact of drugs on body systems. Drugs covered would include both legal and illegal.

**2005.302 Attitude and Attitude Change****3 s.h.***Prerequisite: 2001.100, 2005.206 or 2002.309*

This course examines the psychological theories and research techniques concerning the development of attitudes. Students study the relationships among attitudes, values and behavior.

**2005.310 Psychology of Human Sexuality****3 s.h.***Prerequisite: 2001.100 or 2001.104*

This course provides an overview of the current scientific knowledge concerning human sexuality. It examines data from national surveys and controlled laboratory studies.

**2005.350 Psychological Treatment and Counseling of the Alcoholic/Drug Abuser****3 s.h.***Prerequisite: 2005.125*

This course provides an overview of fundamental issues in the psychological treatment and counseling of the alcoholic/drug abuser. Topics covered include ethical issues in counseling, information concerning the theory and practice of individual group and family therapy with substance abusers, treatment planning and case management, gender, race and class issues in counseling the addicted client, and the role of resistance and denial in recovery. The course will be taught by a treatment professional who will focus upon basic counseling issues and skills. Students will be repeatedly informed that completion of this course does not qualify one to practice as a psychologist or therapist. The course constitutes a careful, systematic introduction to the concepts and skills that must be mastered in order to be an effective drug abuse counselor.

**2005.402 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.

**2005.410 Community Psychology****3 s.h.***Prerequisite: 2005.206 or 2003.309 or permission of instructor*

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.

**2005.425 Family Psychology and Alcoholism/Drug Abuse****3 s.h.***Prerequisite: 2005.125*

This course is designed to place the problem of substance abuse in a family context. Family systems theory is used to describe interpersonal dynamics underlying addiction. Gender, race and class issues as they apply to both family systems theory and family therapy are raised in order to place addiction in a social and historical framework. This course stresses the interaction between family psychodynamics and the dynamics of alcoholic/drug abusing behavior. Different family patterns of addiction are identified which require specific family therapy interventions. Techniques from several distinct schools of family therapy are described as they are adopted for the treatment of addicted families. The use of therapy for individual family members is discussed in relation to family dynamics. This course is designed to facilitate the student's understanding of the ways in which families can inhibit and/or encourage change in the addictive behavior of their members.

**2006 Psychometrics****2006.200 Computer Application in Psychology****3 s.h.***Prerequisite: 2001.100 or 2001.104*

Statistics should be completed before or concurrently with this course. This course studies machine data reduction (statistics) by use of programs. Data to be student-collected. Students will become proficient in selection, processing and interpretation of programs. Pre-registration student/teacher consultation desirable.

**2006.300 Psychological Tests and Measurements****3 s.h.***Prerequisite: 2001.104*

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.

**2006.317 Survey Methods in Psychology****3 s.h.**

Students construct and administer surveys, collecting and analyzing data then making formal written reports on the results. Pre-registration consultation with instructor is required.

**2007 Statistics in Psychology****2007.210 Statistics and Research Methods in Psychology****6 s.h.***Prerequisite: 2001.100 or 2001.104*

This course focuses on the appropriate methods of data collection and analysis used in psychological research. Observation, correlation, and experimental techniques are examined. Research strategies from simple two sample designs to multivariate procedures are covered. Topics include data description and hypothesis testing for enumerative, rank order, and numeric measurement, regression and correlation, analysis of variance, and chi-square. The social psychology and ethical problems of psychological research are considered.

**2007.311 Statistics & Research Methods in Psychology I****4 s.h.***Prerequisite: a knowledge of Algebra*

This course introduces research methodology, the nature of measurement, probability, the normal distribution, hypothesis testing, two-sample parametric and non-parametric statistical inference, linear regression and correlation and chi-square.

**2007.312 Statistics & Research Methods in Psychology II****4 s.h.***Prerequisite: 2007.311*

This course covers one-way and two-way analysis of variance, the Kruskall-Wallace and Friedman tests, multiple regression, the social psychology and ethical considerations of psychological research.

**2008 Industrial/Organizational Psychology****2008.215 Consumer Psychology****3 s.h.***Prerequisite: 2001.100*

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.

**2008.220 Personnel Psychology****3 s.h.***Prerequisite: 2001.100*

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.

**2008.305 Human Factors Psychology****3 s.h.***Prerequisite: 2001.104*

This course outlines the basic capabilities and limitations of the human being as the central component in person-machine-environment systems. The course discusses the following topics and others are discussed: job and equipment design; work place layout; work methods; work environment and safety.

**2008.310 Industrial/Organizational Psychology****3 s.h.***Prerequisite: 2001.100*

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.

**2009 Developmental Psychology****2009.205 Psychology of Adult Processes****3 s.h.***Prerequisite: 2001.100 or 2001.104*

This life-span developmental psychology course studies the social, cognitive, emotional, moral and personality development of adults.

**2009.209 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 mechanisms underlying development are emphasized.

**2009.210 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 level skills in selection and use of evaluative techniques and in the use of activities appropriate to the various levels of adolescent development.

## COURSE DESCRIPTIONS

### **2009.305 Developmental Psychopathology**

**3 s.h.**

*Prerequisite: 2001.100, 2009.209 or 2009.210*

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.

### **2010 Physiological Psychology**

**3 s.h.**

*Prerequisite: 2001.104*

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.

## **2102 Public Administration**

### **2102.320 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.

### **2102.410 Public Policy and Administration**

**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.

### **2102.412 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.

### **2102.490 Public Service Internship**

**6-12 s.h.**

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.).

## **2105 Law and Justice Studies**

### **2105.105 American Police**

**3 s.h.**

This course covers the philosophy and history of the police role in society. It surveys organizational forms and basic procedures of police work; police ethics and professional preparation for law enforcement and major problems confronting the police today.

### **2105.110 Introduction to Courts**

**3 s.h.**

This course covers the organization of both the state and federal court systems; the management and administration of those courts; the relationship of courts to the police, corrections, and community; the criminal trial process, including pre-trial and post-trial processes; and the judiciary and judicial power, including the areas of separation of powers and judicial behavior.

### **2105.115 Introduction to Corrections**

**3 s.h.**

This course studies the historical development of correctional practices in the handling of criminals from early to modern times. Students survey contemporary correctional organizational structures and treatment processes, as well as institutional and community based programs and problems.

<b>2105.115 Introduction to Corrections (RS)</b>	<b>3 s.h.</b>
This is a freshman seminar which studies the historical development of correctional practices in the handling of criminals from early to modern times. Students survey contemporary correctional organizational structures and treatment processes, as well as institutional and community based programs and problems.	
<b>2105.120 Introduction to Security</b>	<b>3 s.h.</b>
This course presents the organization and management of the security function in industry, business, government and institutions. It also covers the protection of personnel, facilities and other assets as well as the administrative, legal and technical problems of loss prevention and control.	
<b>2105.205 Minorities, Crime and Justice</b>	<b>3 s.h.</b>
In this course students critically examine the involvement of minorities with crime in the U.S. both as perpetrators and victims. Additionally, they will be afforded the opportunity to understand, critically examine, and apply significant theoretical perspectives for the study of minority criminality. They will develop an understanding of the impact of race and class within the law-making process, the content of the law, and the quality of justice afforded minorities within the American criminal justice system.	
<b>2105.210 Restorative Justice</b>	<b>3 s.h.</b>
<i>Prerequisite: Three credits of Law and Justice classes (2105),</i> This course surveys the major theoretical and applied concepts of Restorative and Community Justice. Students will examine how the Restorative and Community Justice processes differ from the traditional, retributive criminal justice system and how Restorative Justice models attempt to benefit the victim, offender and the community. Some of the issues to be covered are: informal justice practices, reintegrative shaming, forgiveness and resentment, and the efficacy of Restorative and Community Justice initiatives. Additionally, students may have opportunities to interact with adjudicated youth from New Jersey's Restorative Justice Project.	
<b>2105.220 Victimology</b>	<b>3 s.h.</b>
This course gives students insight into the "forgotten" party in a crime, the victim. The course covers victims' rights in the Justice System with specific coverage of the following: the social, economic and racial impacts of crime on victims; victims and courts; police reaction to victims; restitution; offender accountability and the dramatic increase in victims programs and services.	
<b>2105.250 The Scholarship of Criminal Justice</b>	<b>3 s.h.</b>
This course is designed to augment required composition courses with a specific focus on writing within the discipline. The course is designed to prepare students to be more effective scholars in criminal justice in preparation for criminal justice research and other advanced law and justice courses.	
<b>2105.255 Criminal Law</b>	<b>3 s.h.</b>
This course offers a comprehensive review of the major common law and statutory crimes including homicide, rape and all related personal and property offenses. The students will be introduced to domestic violence offenses. Considerable attention is given to the social, moral and constitutional frameworks of the criminal law with a review of recent and standard judicial interpretations. It also offers a review of defenses and mitigation.	
<b>2105.274 Criminal Justice and Community Relations</b>	<b>3 s.h.</b>
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	
<b>2105.275 Survey of Criminal Justice</b>	<b>3 s.h.</b>
This general education approved social science elective course deals with the nature of crime and criminal responsibility, and elements of social control. It also surveys the criminal justice process from original law enforcement contact through the judicial and correctional phases. It includes professional roles and opportunities in the criminal justice field.	

<b>2105.276 Parole, Probation and Community Corrections</b>	<b>3 s.h.</b>
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.	
<b>2105.285 Criminal Investigation</b>	<b>3 s.h.</b>
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.	
<b>2105.290 Forensic Law</b>	<b>3 s.h.</b>
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 of gunshot wounds, DNA fingerprinting, micrography, postmortem determinations and case studies in Forensic Science.	
<b>2105.305 Law and Evidence</b>	<b>3 s.h.</b>
This course covers the basic 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.	
<b>2105.310 Criminal Jurisprudence</b>	<b>3 s.h.</b>
<i>Prerequisite: 2105.255</i>	
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.	
<b>2105.312 Criminal Procedure II</b>	<b>3 s.h.</b>
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 there from.	
<b>2105.315 Criminal Justice and Social Conflict</b>	<b>3 s.h.</b>
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.	
<b>2105.320 Civil Aspects of Law Enforcement</b>	<b>3 s.h.</b>
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.	
<b>2105.322 Drugs and Crime in America</b>	<b>3 s.h.</b>
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.	
<b>2105.324 Sentencing and the Rights of the Convicted</b>	<b>3 s.h.</b>
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.	

**2105.330 Problems of 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.

**2105.335 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 there from.

**2105.337 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.

**2105.342 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.

**2105.346 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.

**2105.356 Criminal Justice Internship I** **3 s.h.**

*Prerequisite: completed eight courses in Law and Justice., 1501.111, 1501.112, Junior Standing*

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)

**2105.357 Criminal Justice Internship II** **3 s.h.**

*Prerequisite: 1501.112*

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 (2105.356) but is intended to allow students additional opportunities for field experience. Students are advised to complete Criminal Justice Internship I (2105.356) prior to enrolling in this course. Students are also encouraged to discuss this course with the internship coordinator prior to enrolling. (Implementation Spring 2004)

**2105.361 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.

## COURSE DESCRIPTIONS

**2105.369 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.

**2105.370 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.

**2105.379 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.

**2105.380 Criminal Justice Research** **3 s.h.**

*Prerequisite: 2105.250, 2105.369*

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.

**2105.386 Law and Human Rights** **3 s.h.**

This course reviews individual civil rights and liberties in detail with 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 advancement of such rights.

**2105.392 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.

**2105.395 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.

**2105.415 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.

**2105.469 Seminar in Law/Justice - WI** **3 s.h.**

*Prerequisite: 1501.112, 2105.255, 2105.275, 2105.380, Senior Standing, one of the following 2105.105 or 2105.110 or 2105.115*

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.

**2202 Anthropology****2202.201 Introduction to Physical Anthropology****3 s.h.**

This course surveys the variety of human biological adaptations to the environment over time and space. Anatomy of the human form is studied as it has evolved over the past 7 million years. Diversity in living human populations and their genetic and physiological variations are examined. This course also introduces the student to some of the specialized subfields of physical anthropology, such as medical anthropology, primatology, and forensic anthropology.

**2202.202 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.

**2202.203 Introduction to Archeology****3 s.h.**

This course covers the rudiments of archeological field techniques, methods of analysis and dating methods. This course may not be offered annually.

**2202.210 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.

**2202.215 Medical Anthropology****3 s.h.**

*Prerequisite: 2202.201 or 0401.100*

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.

**2202.250 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.

**2202.310 Indians of North America****3 s.h.**

This course surveys the development of Indian cultures from early times to the present. It analyzes present-day problems of reservation life and the Indian's place in our society.

**2202.312 Anthropological Perspectives on Physical Growth and Development****3 s.h.**

*Prerequisite: 0401.110 or 0410.210, Suggested 2202.201*

This course examines the normal course of human physical growth and development and inter-population differences in attainment of puberty and final adult height, weight and body shape. It also focuses on the effect of the environment, heredity, disease and nutrition in producing a variety of fat patterns, trunk/limb proportions and delays in growth in different human groups. Finally, students learn to assess critically different types of growth studies and methods of forecasting growth.

**2202.315 Forensic Anthropology****3 s.h.**

*Prerequisite: 2202.201 or 0410.210,*

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. A mandatory weekend morning excavation will be required. Grading is based on homework, a case report, performance on exams and a final paper.

## COURSE DESCRIPTIONS

<b>2202.321 Cultural Ecology</b> <i>Prerequisite:</i> 2202.202	<b>3 s.h.</b>
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.	
<b>2202.322 Sex and Sex Roles in a Cross Cultural Perspective</b> <i>Prerequisite:</i> 2202.202	<b>3 s.h.</b>
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.	
<b>2202.323 Anthropology of Magic and Religion in Primitive, Tribal, and Peasant Cultures</b> This course stresses a cross-cultural comparative approach to the study of tribal and peasant magic and religious systems. It studies particular cultures in depth and emphasizes seeing the magico-religious beliefs and practices in their sociocultural context. This course may not be offered annually.	<b>3 s.h.</b>
<b>2202.326 The Maya</b> <i>Prerequisite:</i> 2202.202 or 2202.310	<b>3 s.h.</b>
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.	
<b>2202.350 Comparative Cultures</b> 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.	<b>3 s.h.</b>
<b>2202.370 Peasant Societies and Cultures of the World</b> <i>Prerequisite:</i> 2202.202	<b>3 s.h.</b>
This course studies the peasant communities of non-industrialized, stratified societies in Latin America, Asia and Africa, while emphasizing the practical problems involved in change and modernization in these societies. This course may not be offered annually.	
<b>2202.371 Anthropological Approaches to Culture Change</b> <i>Prerequisite:</i> 2202.202 or 2208.120	<b>3 s.h.</b>
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.	
<b>2202.491 Independent Study in Anthropology</b> <i>Prerequisite:</i> permission of instructor	<b>3 s.h.</b>
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.	
<b>2202.492 Undergraduate Research Seminar in Anthropology</b> <i>Prerequisite:</i> permission of instructor	<b>3 s.h.</b>
Students participate in planning a research project, collecting data and preparing a report suitable for publication. Subjects of research are selected according to student interest. This course may not be offered annually.	

**2204 Economics****2204.100 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.

**2204.101 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.

**2204.102 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.

**2204.200 History of Economic Ideas** **3 s.h.**

*Prerequisite: 2204.101 or instructor's permission*

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.

**2204.205 American Economic History** **3 s.h.**

*Prerequisite: 2204.101 or instructor's permission*

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.

**2204.210 Environmental Economics** **3 s.h.**

*Prerequisite: 2204.102 or instructor's permission*

This course analyzes the economic causes and consequences of environmental deterioration and examines the relevant public policies. This course may not be offered annually.

**2204.215 Current Economic Problems and Policies** **3 s.h.**

*Prerequisite: 2204.101, 2204.102 or instructor's permission*

This course explores current significant problems confronting the United States' economy. This course may not be offered annually.

**2204.225 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.

**2204.269 Selected Topics in Economics** **3 s.h.**

*Prerequisite: 2204.101 or 2204.102 or instructor's permission*

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.

**2204.282 Economic Statistics** **3 s.h.**

*Prerequisite: 2204.101, 2204.102, either 1702.100 or 1702.260*

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.

**2204.301 Intermediate Macroeconomics** **3 s.h.**

*Prerequisite: 2204.101 or instructor's permission*

This course analyzes in depth the factors determining the level of national income, employment, price levels and interest rates.

## COURSE DESCRIPTIONS

<b>2204.302 Intermediate Microeconomics</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.102 or instructor's permission</i>	
This course analyzes factor price determination, general equilibrium, capital theory and optimal income distribution.	
<b>2204.303 Principles of Economics: Global Perspective</b>	<b>3 s.h.</b>
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.	
<b>2204.305 Money and Banking</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.101 or instructor's permission</i>	
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.	
<b>2204.307 Economic Development M/G</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.101, 2204.102 or instructor's permission</i>	
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.	
<b>2204.310 Global Economics</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.101, 2204.102 or instructor's permission</i>	
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.	
<b>2204.315 Public Finance</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.102, 2204.102 or instructor's permission, 2204.101</i>	
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.	
<b>2204.320 Contemporary Economic Systems M/G</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.101, 2204.102 or instructor's permission</i>	
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.	
<b>2204.324 Centrally Planned Economies</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.101, 2204.102 or instructor's permission</i>	
This course analyzes the nature of the Soviet economic system and current Soviet economic problems and related policies. This course may not be offered annually.	
<b>2204.330 Government and Business</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.102 or instructor's permission</i>	
This course applies microeconomic theories to selected policies toward business. This course may not be offered annually.	
<b>2204.340 Regional Economics of Southern New Jersey</b>	<b>3 s.h.</b>
<i>Prerequisite: 2204.101 or 2204.102 or instructor's permission</i>	
This course provides a thorough and comparative description and analysis of the economy of southern New Jersey with application of the tools of regional economic analysis to this eight county area. This course may not be offered annually.	

**2204.345 Labor Economics** **3 s.h.***Prerequisite: 2204.102 or instructor's permission*

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.

**2204.360 Urban Economics** **3 s.h.***Prerequisite: 2204.102 or instructor's permission*

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.

**2204.390 Risk and Insurance** **3 s.h.***Prerequisite: 2204.101, 2204.102 or instructor's permission*

This course introduces students to an economic approach to the nature of risk, the methods of risk treatment, the insurance mechanism, personal risks, business risks, social risks, the functional aspects of insurance, as well as the regulation of the insurance industry.

**2204.395 The Economics of Personal Financial Planning** **3 s.h.***Prerequisite: 2204.101 or 2204.102 or instructor's permission*

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.

**2204.410 Internship in Economics** **3 s.h.***Prerequisite: Junior or Senior standing or permission of instructor*

This course provides practical experience for the economics major. The student is placed in supervised settings in business, government or other organizations. Interns will develop their skills in applying various economic theories, principles and/or concepts to assigned real world problems. The faculty in the Economics Department will closely supervise, monitor, and evaluate the learning experience.

**2204.451 Managerial Economics** **3 s.h.***Prerequisite: 2204.102 or instructor's permission, Senior standing required*

This course integrates economic theory and methodology with analytical tools for application to decision making about the allocation of scarce resources in public and private institutions. Topics covered include: decision analysis, forecasting, demand analysis, production, cost analysis, profit measurement and pricing.

**2204.492 Seminar in Economics WI** **3 s.h.***Prerequisite: Senior standing or department chairperson's permission*

This course develops the interrelationships of various theoretical and applied areas within the study of economics through the techniques of research design.

**2205 History****2205.100 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.

**2205.101 Western Civilization Since 1660** **3 s.h.**

This course examines 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.

## COURSE DESCRIPTIONS

<b>2205.120 World History Since 1500</b>	<b>3 s.h.</b>
This course studies 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. This course may not be offered annually.	
<b>2205.150 United States to 1865</b>	<b>3 s.h.</b>
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 American and finally welded into a unified nation.	
<b>2205.151 United States Since 1865</b>	<b>3 s.h.</b>
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.	
<b>2205.299 Introduction to Historical Methods</b>	<b>3 s.h.</b>
<i>Prerequisite: History majors or minors</i>	
This course studies the history of historical writing with the design of developing a deep, critical knowledge of the writings of the major schools of history. It analyzes readings in terms of the technical and philosophical problems underlying all historical study. Required of history majors in Junior year.	
<b>2205.300 Ancient Mediterranean World</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.100</i>	
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.	
<b>2205.301 The American Revolution and Early Republic, 1775-1820</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.150</i>	
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.	
<b>2205.304 Islamic Civilization</b>	<b>3 s.h.</b>
This course provides an introduction to the broad currents in Islamic history from the emergence of Islam in the 7th century A.D. through the 18th century. It concentrates on the heartland of the Islamic world, the Middle East, using primary sources as well as secondary interpretations. This course is typically offered during the fall semester.	
<b>2205.308 Modern Middle East</b>	<b>3 s.h.</b>
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.	
<b>2205.310 Medieval Europe</b>	<b>3 s.h.</b>
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.	

**2205.311 Renaissance and Reformation****3 s.h.***Prerequisite:* 2205.100

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.

**2205.312 Age of Enlightenment 1648-1789****3 s.h.**

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.

**2205.313 Age of Revolution 1760-1815****3 s.h.***Prerequisite:* 2205.101

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.

**2205.314 Europe 1871-1914****3 s.h.***Prerequisite:* 2205.101

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.

**2205.315 Twentieth Century Europe I****3 s.h.***Prerequisite:* 2205.101

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.

**2205.316 Twentieth Century Europe II****3 s.h.***Prerequisite:* 2205.101

A continuation of in-depth analysis of the modern European historical experience. This study of contemporary Europe is annually subdivided by themes and/or by chronology. Students may enroll for a year of study or opt for either the first or second semester. This course may not be offered annually.

**2205.321 U.S. History 1820-1861****3 s.h.***Prerequisite:* 2205.150

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.

**2205.322 Civil War and Reconstruction****3 s.h.***Prerequisite:* 2205.150

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 on interpreting the era and its overall significance. This course may not be offered annually.

**2205.324 Twentieth Century U.S.****3 s.h.***Prerequisite:* 2205.151

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.

**2205.326 England Since 1715****3 s.h.***Prerequisite:* 2205.101

This course explores developments in English society, government, art, and literature with special emphasis on eighteenth century social and constitutional customs; nineteenth century urbanization, industrialization, imperialism and the attendant social and political consequences; twentieth century world wars, the creation of the welfare state and decolonization. This course may not be offered annually.

**2205.327 Victorian England****3 s.h.***Prerequisite:* 2205.10

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.

**2205.328 Colonial North America 1500-1775****3 s.h.***Prerequisite:* 2205.150

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.

**2205.329 The Gilded Age and Progressive Era, 1877-1914****3 s.h.***Prerequisite:* 2205.151

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' 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.

**2205.338 America From War to War, 1914-1945****3 s.h.***Prerequisite:* 2205.151

A chaotic combination of issues marked the period of American history between 1914 and 1945. The emergence of the United States as a world power, the symbiosis of mass production and mass consumption, the political ambivalence on issues of social and economic policy, the expansion of opportunities for women, and the confluence of nativism and race relations charged these years with great energy, optimism, and frustration. The students will study the expansion of the 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.

**2205.343 Russia to 1914****3 s.h.**

This course traces the origin, rise and development of Russia until the end of the Imperial period. It emphasizes the formative features in Russian history, using readings from primary sources and secondary interpretations. This course may not be offered annually.

**2205.344 Russia Since 1914****3 s.h.**

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.

**2205.347 Traditional Latin America****3 s.h.**

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.

**2205.350 Modern Latin America****3 s.h.**

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.

**2205.351 Modern Japan****3 s.h.**

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.

**2205.355 Modern China****3 s.h.**

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.

**2205.362 History of Mexico and the Caribbean****3 s.h.**

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.

**2205.375 America Since 1945: The Modern Era****3 s.h.**

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.

**2205.376 Afro-American History to 1865****3 s.h.**

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.

**2205.377 Afro-American History Since 1865****3 s.h.**

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.

**2205.380 Traditional Jewish History****3 s.h.**

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.

**2205.381 Modern Jewish History****3 s.h.**

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.

**2205.394 Sub-Saharan Africa to 1800****3 s.h.**

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.

**2205.397 Sub-Saharan Africa Since 1800****3 s.h.**

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.

<b>2205.403 Sport in History</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.120 or 2205.151 or 2205.101</i>	
This course will explore the cultural history of modern sport. This process will include not only an examination of the development of the games themselves, but also the manner in which these developments relate to the societies from which the sports emerged. The geographic area of concentration will be primarily Great Britain, the British Empire and the United States. The course will examine key developments, trends, and issues that historically have influenced the formation of a Western sporting tradition. This course may not be offered annually.	
<b>2205.404 Arab-Israeli Conflict</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.101 or 2205.120 or 2205.151</i>	
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.	
<b>2205.406 Jewish Holocaust 1933-1945</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.101 or 2205.120 or 2205.151</i>	
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.	
<b>2205.407 History of World War II</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.101 or 2205.120 or 2205.151</i>	
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.	
<b>2205.408 Chinese Cultural History</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.101 or 2205.120 or 2205.151</i>	
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.	
<b>2205.409 Latin American Revolutions and Reform</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.101 or 2205.120 or 2205.151</i>	
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.	
<b>2205.410 European Intellectual History Since the 16th Century</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.101 or 2205.120 or 2205.151</i>	
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.	
<b>2205.411 Topics in Latin American History</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.101 or 2205.120 or 2205.151</i>	
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.	
<b>2205.412 Intellectual History of the U.S.</b>	<b>3 s.h.</b>
<i>Prerequisite: 2205.150, 2205.151</i>	
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.	

**2205.413 Comparative Race Relations: South Africa, Brazil, and the U.S.** **3 s.h.**

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.

**2205.413 Urban History of the U.S.** **3 s.h.**

*Prerequisite:* 2205.150, 2205.151

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.

**2205.414 Diplomatic History of the U.S. to 1900** **3 s.h.**

*Prerequisite:* 2205.150

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.

**2205.415 Diplomatic History of the U.S. Since 1900** **3 s.h.**

*Prerequisite:* 2205.151

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.

**2205.417 Women in Islam** **3 s.h.**

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.

**2205.418 Women in Europe to 1700** **3 s.h.**

*Prerequisite:* 2205.100 or 2205.120, 2205.399 or permission of instructor

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.

**2205.419 Women in Modern Europe** **3 s.h.**

*Prerequisite:* 2205.101 or 1105.120, 2205.399 or permission of instructor

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.

**2205.422 Women in American History** **3 s.h.**

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.

**2205.425 History of Feminisms** **3 s.h.**

*Prerequisite:* one of the following: 2205.150, 2205.151, 2205.100, 2205.101, 2205.419, 2205.422

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.

**2205.428 Family History****3 s.h.***Prerequisite: 2205.100 or 2205.101*

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.

**2205.429 Proseminar in History****3 s.h.***Prerequisite: 2205.100 or 2205.101, 2205.150 or 2205.151 or 2205.120, 2205.299 or permission of instructor*

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. Past and proposed topics include early modern witchcraft, the partition of Africa, comparative historiography of China and Europe, revolutions and revolutionaries, and historical analysis of visual texts.

**2205.436 U.S. Home Front 1941-1945****3 s.h.**

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.

**2205.437 Twentieth Century African Nationalism****3 s.h.**

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.

**2205.438 History of the Vietnam War****3 s.h.**

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.

**2205.441 Imperialism and Colonialism****3 s.h.***Prerequisite: 2205.101 or 2205.120*

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 "national liberation" movements, using readings in primary sources and secondary interpretations. This course may not be offered annually.

**2205.455 Gender, Sexuality and History****3 s.h.***Prerequisite: 2205.100, 2205.101*

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. A major research paper is required. This course may not be offered annually.

**2205.470 Issues in American History****3 s.h.**

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.

**2205.471 History of the American West****3 s.h.**

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.

**2205.472 Cultural History of the U.S.****3 s.h.***Prerequisite: 2205.150 or 2205.151*

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.

**2205.473 American Military History, 1775-Present****3 s.h.**

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.

**2205.474 U.S. Labor History****3 s.h.***Prerequisite: 2205.150 or 2205.151*

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.

**2205.475 History of New Jersey****3 s.h.**

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. It stresses the history of New Jersey.

**2205.492 Seminar****3 s.h.***Prerequisite: History majors only, at least 75 credits*

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.

**2205.493 Independent Study****3 s.h.***Prerequisite: Department permission*

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.

**2205.495 Field Service in History****3-12 s.h.***Prerequisite: Department permission*

Designed to introduce students to actual historical work, this course places students with an historical society, museum, library or similar institution, where they serve a minimum of nine hours per week for one semester as a volunteer working in the arranging of archival material, exhibits, etc. This course may not be offered annually.

**2206 Geography****2206.100 Introduction to Geography and Earth Studies****3.0 s.h.**

Introduction to Geography and Earth Studies is 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.

**2206.101 Physical Geography****3 s.h.**

Intended to develop an understanding of the physical factors of the earth as human habitat and human adjustments to (or modifications of) them, this course emphasizes the analysis and world distributional patterns of landforms, climate, vegetation, soils and water features and the causes of interrelationships of these patterns.

## COURSE DESCRIPTIONS

### **2206.102 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.

### **2206.103 Geology I 4 s.h.**

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.

### **2206.104 Geology II 4 s.h.**

*Prerequisite:* 2206.103

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.

### **2206.110 Investigations in Physical Geography 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, 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.

### **2206.111 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 fund 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.

### **2206.193 Introduction to the Mapping and Geographic Information Science 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.

### **2206.201 Geography of the United States and 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.

### **2206.301 Economic Geography 3 s.h.**

This course is a survey of world patterns of economic development, including the distribution patterns of population, natural and agricultural resources, and manufacturing and service endeavors. Emphasis is placed on spatial variations in types of economic organization and patterns of land and resource utilization. This course may not be offered annually.

### **2206.302 Urban Geography 3 s.h.**

A study of the geographic principles related to the distribution, growth, function, structure and regional setting of urban centers, this course emphasizes spatial aspects of contemporary urban problems in the U.S.

**2206.303 Political Geography****3 s.h.**

Studying political units as spatial phenomena, this course focuses upon the wide range of geographic factors affecting past and present variations of world political organizations and the interrelationships of regional political units. It analyzes "Geopolitik," "The Heartland Theory," and other political-geographic concepts, as well as selected problem areas. This course may not be offered annually.

**2206.304 Population Geography****3 s.h.**

This course provides a spatial analysis of population parameters as they exist in the contemporary world, examining demographic, cultural and economic variables and how they affect certain population groups. This course may not be offered annually.

**2206.305 Climatology****3 s.h.**

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.

**2206.306 Cartography****3 s.h.**

This course studies the elements of cartography with emphasis on the map as a basic form of communication. It explores contemporary design concepts and various graphic techniques. Students draft relatively simple maps to understand techniques used in blending a wealth of information into a complex, yet readable, map.

**2206.307 Directed Geographic Field Experiences****3 s.h.**

*Prerequisite: An interest in field geography, plus any introductory geography course*

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.

**2206.308 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.

**2206.309 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.

**2206.310 Land Use and Resource Development****3 s.h.**

This course examines people's changing perceptions of the economic use potential of the total environment focusing on the interactions of physical, economic, political and cultural environments.

**2206.313 Geography of Transportation****3 s.h.**

This course analyzes the significance of transport patterns as they have evolved in terms of physical, economic and cultural factors. It examines transport as both a cause and an effect in regional development and in urban systems. This course may not be offered annually.

**2206.315 Field Studies in Geography****3 s.h.**

*Prerequisite: two previous geography courses or permission of instructor*

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.

## COURSE DESCRIPTIONS

### **2206.320 Computer Cartography**

**3 s.h.**

Students learn methods used in automated cartographic data capture and image formation. The course outlines alternative data structures for raster and vector mode approaches. It introduces students to automated thematic map making on the microcomputer.

### **2206.321 Advanced Cartography**

**3 s.h.**

*Prerequisite: Cartography*

This course uses scribing, color overlays, data organization systems and advanced drafting techniques to produce a series of maps and cartograms. The course is geared to solving graphics and map reproduction problems as well as acquainting students with current media, tools and techniques.

### **2206.323 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.

### **2206.325 Geomorphology**

**3 s.h.**

*Prerequisite: 2206.103 or 2206.110*

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.

### **2206.342 Geography of Europe**

**3 s.h.**

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.

### **2206.343 Geography of Asia**

**3 s.h.**

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.

### **2206.344 Geography of Latin America**

**3 s.h.**

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.

### **2206.345 Geography of Africa**

**3 s.h.**

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.

### **2206.346 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.

### **2206.347 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.

**2206.350 Quantitative Methods in Geography****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.

**2206.355 Metropolitan/Regional Planning****3 s.h.**

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.

**2206.360 Geographic Information Systems I****3 s.h.**

*Prerequisite or co-requisite: 2206.193 or permission of the instructor*

Geographic Information Systems I (GIS I) begins with a brief history of GIS. Students are then introduced to the hardware and software components of GIS through lecture, demonstration, and hands-on laboratory exercises. Students learn GIS analysis techniques through lecture and computer laboratory sessions. Student evaluation is based on performance on examinations and computer laboratory assignments.

**2206.415 Geographic Information Systems II****3 s.h.**

*Prerequisite or co-requisite: 2206.193 or permission of the instructor*

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.

**2206.425 Metropolitan/Regional Planning Internship****3-6 s.h.**

This course provides students with an opportunity to work with professionals in planning and planning-related fields with the guidance of a faculty sponsor. Interns will apply and enhance geographic skills in practical planning solutions. Recommendation of faculty sponsor and concurrence of prospective employer are required. This course may not be offered annually.

**2206.491 Independent Study in Geography****3-12 s.h.**

*Prerequisite: Department permission*

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.

**2206.493 Undergraduate Research Seminar in Geography-WI (Senior Seminar)****3 s.h.**

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 generally offered in the Fall Semester.

**2206.555 Geographic Information Systems (GIS) Topics and Applications****3 s.h.**

*Prerequisite or co-requisite: 2206.193 or permission of the instructor*

Geographic Information Systems (GIS) Topics and Applications provides an extended exploration into Geospatial science and analysis at the graduate level. Students develop advanced GIS skills through a project-based approach culminating in a final project and presentation. The course deepens the understanding of raster and vector data structures as well as the ability to work with computational algorithms used in GIS analysis. Students learn through lectures, demonstrations, computer laboratory sessions and a project paper and presentation.

**2207 Political Science and Government****2207.100 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.

**2207.110 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.

**2207.200 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.

**2207.210 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.

**2207.211 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.

**2207.220 State and Local Government****3 s.h.**

This course studies legislatures, executives, judicial systems and bureaucrats 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.

**2207.230 Comparative Political Systems****3 s.h.**

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.

**2207.231 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.

**2207.232 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.

**2207.240 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.

**2207.303 Campaigns, Political Parties and Interest Groups****3 s.h.**

*Prerequisite: 2207.110 or permission of instructor*

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.

**2207.305 The Legislative Process****3 s.h.***Prerequisite: 2207.110 or permission of instructor*

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.

**2207.306 The Presidency****3 s.h.***Prerequisite: 2207.110 or permission of instructor*

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.

**2207.310 American Constitutional Law****3 s.h.***Prerequisite: 2207.110 or permission of instructor*

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.

**2207.312 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.

**2207.320 International Relations****3 s.h.**

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.

**2207.323 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.

**2207.330 Contemporary U.S. Foreign Policy****3 s.h.**

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.

**2207.340 Civil Rights and Civil Liberties****3 s.h.**

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.

**2207.341 Politics and Society in Russia and the C.I.S.****3 s.h.**

This course examines the emergence of Russia as the principle successor to the Soviet Union. 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.

**2207.346 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.

**2207.351 Russian Foreign Policy****3 s.h.**

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.

## COURSE DESCRIPTIONS

<b>2207.360 Methodology and Statistics in Political Science Research</b>	<b>3 s.h.</b>
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.	
<b>2207.370 Special Topics in Political Science</b>	<b>3 s.h.</b>
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.	
<b>2207.375 Politics and the Judicial Process</b>	<b>3 s.h.</b>
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.	
<b>2207.400 American Political Thought</b>	<b>3 s.h.</b>
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.	
<b>2207.401 Contemporary Political Thought</b>	<b>3 s.h.</b>
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.	
<b>2207.410 Selected Problems in Constitutional Law</b>	<b>3 s.h.</b>
<i>Prerequisite: 2207.310 or permission of instructor</i>	
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.	
<b>2207.415 In-depth Study of the Current Supreme Court</b>	<b>3 s.h.</b>
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.	
<b>2207.420 International Law</b>	<b>3 s.h.</b>
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.	
<b>2207.421 International Organizations</b>	<b>3 s.h.</b>
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.	
<b>2207.489 Seminar in Political Science - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: Senior standing, Political Science major, completion of 2207.360</i>	
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.	
<b>2207.490 Seminar in Political Science</b>	<b>3 s.h.</b>
<i>(Open only to senior political science majors)</i>	
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.	
<b>2207.491 Independent Study in Political Science</b>	<b>3 s.h.</b>
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.	

**2208 Sociology****2208.120 Introduction to Sociology****3 s.h.**

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)

**2208.220 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.

**2208.221 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.

**2208.223 The Sociology of Social Welfare****3 s.h.**

*Prerequisite:* 2208.120

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.

**2208.230 The Sociology of Minority Groups****3 s.h.**

*Prerequisite:* 2208.120

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.

**2208.269 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.

**2208.320 Urban Sociology****3 s.h.**

*Prerequisite:* 2208.120

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.

**2208.322 The Sociology of Religion****3 s.h.**

*Prerequisite:* 2208.120

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.

**2208.323 The Sociology of Social Work****3 s.h.**

*Prerequisite:* 2208.120, 2208.223 or permission of instructor

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.

**2208.325 Deviant Behavior and Social Control - WI****3 s.h.**

*Prerequisite:* 2208.120

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.

## COURSE DESCRIPTIONS

<b>2208.326 The Socialization of The Child Through Adolescence - WI</b>	<b>3 s.h.</b>
<i>Prerequisite: 2208.120 or 2208.220</i>	
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.	
<b>2208.327 Comparative Education in Sociological Perspective</b>	<b>3 s.h.</b>
<i>Prerequisite: 2208.120 or permission of instructor</i>	
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.	
<b>2208.330 Social Stratification</b>	<b>3 s.h.</b>
<i>Prerequisite: 2208.120</i>	
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.	
<b>2208.331 Classical Sociological Theory</b>	<b>3 s.h.</b>
<i>Prerequisite: 2208.120, 3 hours in sociology</i>	
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)	
<b>2208.332 Contemporary Sociological Theory</b>	<b>3 s.h.</b>
<i>Prerequisite: 2208.120, 2208.331</i>	
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.	
<b>2208.333 Sociology of Work</b>	<b>3 s.h.</b>
<i>Prerequisite: 2208.120</i>	
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.	
<b>2208.336 Sociology of Education</b>	<b>3 s.h.</b>
<i>Prerequisite: 2208.120 or permission of instructor</i>	
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.	
<b>2208.339 Sociological Practice</b>	<b>3 s.h.</b>
<i>Prerequisite: 2208.120</i>	
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.	

**2208.351 Political Sociology****3 s.h.***Prerequisite: 2208.120*

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.

**2208.353 The Sociology of Complex Organizations****3 s.h.***Prerequisite: 2208.120 or permission of the instructor*

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.

**2208.370 The Sociology of Women in Society****3 s.h.***Prerequisite: 2208.120 or 2208.220*

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.

**2208.375 Sociological Research Methods****3 s.h.***Prerequisite: 2208.120*

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 rudimentarys 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)

**2208.376 Social Statistics****3 s.h.***Prerequisite: 2208.120*

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)

**2208.399 Sociology of the Holocaust - WI****3 s.h.***Prerequisite: 2208.120*

This course primarily deals with structural and experiential dimensions of the genocidal process affecting the European Jews, their ethnicity, culture and religious communalty 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 shoah 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.

**2208.400 Environment, Policy and Society****3 s.h.***Prerequisite: 2208.120*

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.

## COURSE DESCRIPTIONS

### **2208.401 Human Service Organizations**

**3 s.h.**

*Prerequisite: 2208.120*

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 "processing" human beings, the internal and external environments in which they operate, and the policy implications for delivery of services and organizational change.

### **2208.425 Senior Seminar in Sociology**

**3 s.h.**

*Prerequisite: Sociology major, senior standing, 2208.331, 2208.375, 2208.376 or permission of 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.

### **2208.431 The Social Psychology of City Life**

**3 s.h.**

*Prerequisite: 2208.120, 6 s.h. in Sociology or permission of instructor*

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.

### **2208.436 Sociology of Medicine**

**3 s.h.**

*Prerequisite: 2208.120 or permission of instructor*

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.

### **2208.440 Selected Topics in Sociology**

**3 s.h.**

*Prerequisite: 2208.120, 12 hours in Sociology or permission of instructor*

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.

### **2208.491 Independent Study in Sociology**

**3 s.h.**

*Prerequisite: 2208.120, Open only to juniors and seniors*

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.

### **2208.493 Seminar on Gender Roles**

**3 s.h.**

*Prerequisite: 2208.220, 6 hours in Sociology or permission of instructor*

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.

### **2208.494 Field Experience Seminar in Sociology - WI**

**3 or 6\* s.h.**

*Prerequisite: permission of the 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].*

**2209 Criminology****2209.323 The Sociology of Crime and Criminal Law****3 s.h.***Prerequisite:* 2208.120

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.

**2209.333 The Sociology of Punishment and Correction****3 s.h.***Prerequisite:* 2208.120

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.

**2215 Demography****2215.322 The Sociology of Population****3 s.h.***Prerequisite:* 2208.120

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.

**4901 Interdisciplinary Courses****4901.174 Ethics and the Professions****3 s.h.**

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.

**4901.176 Historical Aesthetics of Suffering****3 s.h.**

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.

**4901.178 In Search of Democracy: The Quest for Civil Liberties****3 s.h.**

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.

**4901.266 Computers and Society - WI****3 s.h.***Prerequisite:* 1501.112, 1506.202

Same as 4901.265. The course offered as writing intensive.

**4901.315 Patterns in Nature II: Projects in Calculus and Physics****4 s.h.***Prerequisite:* 1703.305

This laboratory course for students in the math/science specialization track of Liberal Studies provides an introduction through physics projects to techniques of mathematical modeling and quantitative reasoning, including the use of vectors, parametric equations, and calculus. Problem situations provide opportunities to investigate motion and spectra concretely. Graphing calculators and computers will be used.

**4901 Liberal Arts and Sciences-General****4901.101 Introduction to Humanities 3 s.h.**

This course provides an appropriate foundation for students' subsequent course work in the humanities component of their General Education requirements. The course engages students in a critical analysis of selected primary texts which are representative of the humanities disciplines and which are chosen from different historical periods and various cultures. The texts will reflect a basic theme chosen to encourage students to examine the values of their society and to appreciate the rich and diverse contributions to their cultural heritage. Students will also be encouraged to improve their skills in critical thinking and written communication.

**4901.102 Introduction to Social Science: Self, Society and Power 3 s.h.**

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.

**4901.104 Introduction to Africana Studies 3 s.h.**

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. Our 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.

**4901.120 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?

**4901.130 Women in Perspective 3 s.h.**

An introduction to Women's 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.

**4901.132 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?

**4901.134 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

**4901.136 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.

**4901.138 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.

**4901.140 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.

**4901.142 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.

**4901.144 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.

**4901.146 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.

**4901.148 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.

**4901.150 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.

**4901.152 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 hinder 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.

**4901.154 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.

## COURSE DESCRIPTIONS

**4901.156 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.

**4901.158 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.

**4901.160 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.

**4901.162 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.

**4901.164 Science Fiction as a Gateway to Human Diversity** **3 s.h.**

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.

**4901.166 Rhetoric of Music - RS** **3 s.h.**

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.

**4901.168 What's Wrong With Normal? - RS** **3 s.h.**

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.

**4901.170 Law and Order - RS** **3 s.h.**

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, affirmative action hiring, cost of crime, cost effectiveness of prevention and rehabilitation pro-

grams, 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.

**4901.172 Songs of Praise/Protest - RS** **3 s.h.**

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 Minstrels 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.

**4901.200 Issues in Women's Health** **3 s.h.**

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.

**4901.265 Computers and Society** **3 s.h.**

*Prerequisite: 1501.112, 1506.202*

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.

**4901.266 Computer and Society - WI** **3 s.h.**

*Prerequisite: 1506.202*

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.

**4901.304 Africana Social and Political Thought** **3 s.h.**

*Prerequisite: 4901.100*

This course engages students in an introductory overview of major ideas, 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.

**4901.350 International Studies Seminar** **3 s.h.**

This course, designed as the culmination of the International Studies concentration, is required for all students in one or more areas of the concentration. It provides the setting for in-depth research and discussion of selected issues or problems in the context of the contemporary interdependent world.

## COURSE DESCRIPTIONS

### **4901.430 Women, Sex, and Power: A Capstone Seminar in Women's Studies** **3 s.h.**

*Prerequisite: 4901.130*

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.

### **4901.486 Interdisciplinary Materials Science** **3 s.h.**

*Prerequisite: Junior or Senior year student, majoring in science or engineering*

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, fiber optics, spintronics, and photonics.

## **4902 Math and Science**

### **4902.492 Senior Seminar in Math/Science** **3 s.h.**

*Prerequisite: senior-level Liberal Studies: Math/Science*

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.

## **4905 Honors**

### **4905.105 Honors Humanities** **3 s.h.**

This is a lower level interdisciplinary General Education course which can be taken by honors students as a Humanities 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. Topics and themes may change.

### **4905.180 Honors Mathematics** **3-4 s.h.**

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.

### **4905.185 Honors Natural Sciences** **3 s.h.**

This is a lower level interdisciplinary General Education course which can be taken by honors students as a Natural Science General Education 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. Topics may change each semester.

### **4905.190 Honors Social Sciences** **3 s.h.**

This is a lower level interdisciplinary General Education course which can be taken by honors students as a Social Science General Education course. 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. Announcements will be made each semester for specific topic areas being offered.

**4905.390 Honors Selected Topics****3 s.h.**

This is an upper level seminar style course that will address itself to topics and problems taken from various disciplines and which is interdisciplinary in nature. Examples of courses offered in recent semesters include Caribbean Culture; Times of Crisis-What is An American?; The Play in Performance; Environmental Ethics; Issues in Women's Health; and Biology, History and the Fate of Societies. This course may be repeated for a total of 9 s.h.

**4994 Environmental Studies****4994.101 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.

**4994.102 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.

**4994.121 Field Methods and Research Design in Environmental Studies****4 s.h.**

*Prerequisite: 4994.101, 4994.102*

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 assessments, 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.

**4994.301 Environmental Ethics****3 s.h.**

*Prerequisite: Junior Standing*

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.

**4994.401 Seminar in Environmental Studies I****3 s.h.**

*Prerequisite: Senior Standing*

Students participate in planning a research project, collecting data, and preparing a report suitable for publication. Research topics are selected according to student interests.

**4994.402 Seminar in Environmental Studies II****3 s.h.**

*Prerequisite: Senior Standing*

Students participate in planning a research project, collecting data, and preparing a report suitable for publication. Research topics are selected according to student interests.

**4999 Social and Community Services****4999.300 Environmental Internship****3-12 s.h.**

*Prerequisite: a minimum of 6 s.h. of credit in environmentally related courses, permission of the instructor*

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.

# FACULTY

## Accounting and Finance

<b>BAO, DA-HSIEN (1995)</b>	Professor
B.S., <i>Fu Jen Catholic University</i> ; M.B.A., Ph.D., <i>University of Southern California</i>	
<b>CHUNG, SHIFEI (1997)</b>	Associate Professor
B.S., <i>National Taiwan University</i> ; M.S., <i>University of Wisconsin-Madison</i> ; CPA; Ph.D., <i>University of Memphis</i>	
<b>GADAROWSKI, CHRISTOPHER (2003)</b>	Assistant Professor
B.S., <i>University of Arizona</i> ; M.B.A., <i>University of Rochester</i> ; Ph.D., <i>Arizona State</i>	
<b>HUGHES, DIANE (1987)</b>	Associate Professor
B.A., <i>Rutgers College</i> ; M.B.A., <i>Long Island University</i> ; J.D., <i>Rutgers University</i>	
<b>ISIK, IHSAN (2001)</b>	Associate Professor
B.S., <i>Middle East Technical University</i> ; M.S., <i>Texas Tech University</i> ; M.A., Ph.D., <i>University of New Orleans</i>	
<b>KYJ, LARISSA (1992)</b>	Professor
B.A., <i>Fordham</i> ; M.A., Ph.D., <i>Columbia University</i> ; CPA; CMA	
<b>MARMON, RICHARD (1986)</b>	Associate Professor
B.S., <i>Glassboro State College (Rowan)</i> ; M.B.A., <i>LaSalle University</i> ; J.D., <i>Widener University</i> ; CPA; CMA	
<b>MERIC, GULSER (1987)</b>	Professor
B.A., <i>Ankara University</i> ; M.S., Ph.D., <i>Lehigh University</i>	
<b>PRITCHARD, ROBERT (1971)</b>	Professor
B.S., M.B.A., <i>Drexel University</i> ; M.A., Ed.D., <i>University of Pennsylvania</i>	
<b>ROMEO, GEORGE (1979)</b>	Professor
B.S., <i>Rider College</i> ; M.S., <i>Loyola College</i> ; Ph.D., <i>Drexel University</i> ; CPA	
<b>WEIDMAN, STEPHANIE M. (1995)</b>	Associate Professor
B.S., <i>University of Delaware</i> ; M.B.A., <i>Duke</i> ; Ph.D., <i>Drexel University</i> ; CMA	
<b>WELSH, CAROL (1983)</b>	Associate Professor
B.S., M.B.A., <i>Drexel University</i> ; CPA, CIA	

## Art

<b>ADELSON, FRED (1974)</b>	Professor
B.A., <i>Univ. of Massachusetts</i> ; M.A., M.Phil., Ph.D., <i>Columbia University</i>	
<b>APPELSON, HERBERT (1967)</b>	Professor
B.A., <i>Brooklyn College</i> ; M.S., M.F.A., <i>Univ. of Wisconsin</i> ; Ed.D., <i>Columbia University</i>	
<b>BOWMAN, SUSAN (2002)</b>	Assistant Professor
B.F.A., <i>San Francisco Art Institute</i> ; M.F.A., <i>Rutgers University</i>	
<b>CHARD, DANIEL (1968)</b>	Professor
B.F.A., <i>Univ. of South Dakota</i> ; M.A., <i>Northern State College</i> ; Ed.D., <i>Columbia University</i>	
<b>GALLINELLI, JOHN (1969)</b>	Professor
B.Ed., <i>Keene State College</i> ; Ph.D., <i>University of Maryland</i>	

<b>GRAZIANO, JANE E. (1999)</b> .....	<b>Assistant Professor</b>
<i>B.S., University of Illinois; M.A., Rowan College; Ed.D., Teachers College, Columbia University</i>	
<b>HOTTEL, ANDREW D (2004)</b> .....	<b>Assistant Professor</b>
<i>B.A., M.A., Ohio State University; Ph.D., Temple University Tyler School of the Arts</i>	
<b>MITZEN, NANCY (1994)</b> .....	<b>Assistant Professor</b>
<i>B.A., Columbia College; M.A. New York Institute of Technology; M.F.A., Temple University</i>	
<b>MURASHIMA, KUMIKO (1971)</b> .....	<b>Associate Professor</b>
<i>B.F.A., Women's College of Fine Arts (Tokyo); M.F.A., Indiana University; Certificate in Textile Design, Parsons School of Design</i>	
<b>OHANIAN, NANCY L. (1992)</b> .....	<b>Professor</b>
<i>B.F.A., Layton School of Art and Design; M.F.A., Pratt Institute</i>	
<b>PASSMORE, KAYE LEISSNER (2003)</b> .....	<b>Assistant Professor</b>
<i>B.A., M.A., Texas Tech University; Ed. D. Boston University</i>	
<b>THOMAS, SKEFFINGTON N. (1997)</b> .....	<b>Associate Professor</b>
<i>B.A., Lewis and Clark College; M.F.A., Southern Illinois University</i>	
<b>TRAVIS, WILLIAM (1971)</b> .....	<b>Assistant Professor</b>
<i>B.F.A., Philadelphia College of Arts; M.F.A., Temple University</i>	
<b>VACCARO, DAVID E. (2003)</b> .....	<b>Assistant Professor</b>
<i>B.F.A. Edinboro State University; M.F.A. University of Tennessee</i>	

## Biological Sciences

<b>BENJAMIN, BARBARA (2004)</b> .....	<b>Associate Professor</b>
<i>B.S.N., Teachers College, Columbia University; M.S., Rutgers University; Ed.D., Teachers College, Columbia University</i>	
<b>FARISH, DONALD J. (1998)</b> .....	<b>President/Professor</b>
<i>B.Sc., University of British Columbia; M.S., North Carolina State University; Ph.D., Harvard University; J.D., University of Missouri</i>	
<b>GROVE, MICHAEL W. (2001)</b> .....	<b>Assistant Professor</b>
<i>B.S., The Ohio State University; Ph.D., University of South Carolina</i>	
<b>HECHT, GREGORY B. (1995)</b> .....	<b>Associate Professor</b>
<i>B.S., University of Rochester; M.A., Ph.D., Princeton University</i>	
<b>HOLBROOK, LUKE T. (1999)</b> .....	<b>Associate Professor</b>
<i>B.S., Fordham University; M.S., Ph.D., University of Massachusetts</i>	
<b>HOUGH, GERALD (2003)</b> .....	<b>Assistant Professor</b>
<i>B.S., Purdue University; M.S., Ph.D., The Ohio State University</i>	
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ADMINISTRATIVE AND PROFESSIONAL STAFF

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ADMINISTRATIVE AND PROFESSIONAL STAFF

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**Educational Leadership**

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### **Elementary/Early Childhood Education**

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<b>SCHAUER, LOIS (1973)</b>	.....	<b>Associate Professor</b>
B.S., Ed., M.Ed., Ed.D., Temple University		
<b>WILLIAMS, LEONARD J. (1990)</b>	.....	<b>Associate Professor</b>
B.A., University of Delaware; M.A., McMaster University, Hamilton, Ont.; Ph.D., University of South Carolina		
<b>YURAK, TRICIA J. (1998)</b>	.....	<b>Assistant Professor</b>
B.S., Northern Kentucky University; M.S., Ohio University; Ph.D., Ohio University		

**Public Relations/Advertising**

<b>BAGIN, DONALD (1966)</b>	.....	<b>Professor</b>
B.A., M.A., Villanova University; Ed.D., Temple University		
<b>BASSO, JOSEPH (2003)</b>	.....	<b>Assistant Professor</b>
B.A., M.A., Glassboro State College; Ph.D., Texas A & M University		
<b>BURGER, PAUL (2005)</b>	.....	<b>Assistant Professor</b>
B.A., Marquette University; M.B.A., Loyola University		
<b>BUSLER, MICHAEL (2004)</b>	.....	<b>Assistant Professor</b>
B.S., M.B.A., Ph.D., Drexel University		
<b>EARL, RICHARD L (2004)</b>	.....	<b>Instructor</b>
B.A., M.A., Rutgers University		

<b>FITZGERALD, SUZANNE SPARKS (1994)</b>	.....	<b>Professor</b>
<i>B.A., Eastern University; M.S., Drexel University; Ph.D., Temple University; APR; Fellow PRSA</i>		
<b>FULGINITI, ANTHONY (1976)</b>	.....	<b>Professor</b>
<i>B.A., Laurel Hill College; M.A., Villanova University; M.A., Glassboro State College; APR Fellow PRSA</i>		
<b>LITWIN, LARRY (2000)</b>	.....	<b>Associate Professor</b>
<i>B.A., Parsons College; M.A., Glassboro State College</i>		
<b>VOLPE, CHARLES (2000)</b>	.....	<b>Assistant Professor</b>
<i>B.A., Brooklyn College; M.A., Rowan University</i>		

### Radio/Television/Film

<b>BIERMAN, JOSEPH (1988)</b>	.....	<b>Associate Professor</b>
<i>B.A., Rowan University; M.F.A., New York University; Ph.D., Regent University</i>		
<b>BIESEN, SHERI CHINEN (2001)</b>	.....	<b>Assistant Professor</b>
<i>B.A., M.A., University of Southern California; Ph.D., The University of Texas</i>		
<b>BRAND, KEITH M. (2002)</b>	.....	<b>Assistant Professor</b>
<i>B.F.A., West Virginia University; M.Ed., Temple University</i>		
<b>DONOVAN, MIKE (1972)</b>	.....	<b>Professor</b>
<i>B.A., Jersey City State College; M.A., New York University</i>		
<b>ECKHARDT, EDGAR C. (1979)</b>	.....	<b>Professor</b>
<i>B.A., Colgate University; M.A., Case Western Reserve University</i>		
<b>GRUPENHOFF, RICHARD (1981)</b>	.....	<b>Professor</b>
<i>B.A., Xavier University; M.A., Purdue University; Ph.D., Ohio State University</i>		
<b>KALETA, KENNETH (1989)</b>	.....	<b>Professor</b>
<i>B.A., M.A., Villanova University; Ph.D., New York University</i>		
<b>LANCIONI, JUDITH (1993)</b>	.....	<b>Associate Professor</b>
<i>B.A., College of New Rochelle; M.A., Ohio University; Ph.D., Temple University</i>		

### Reading

<b>BROWNE, SUSAN (2003)</b>	.....	<b>Assistant Professor</b>
<i>B.A., Temple University; M.A., Cheyney University; Ed.D., University of Pennsylvania</i>		
<b>DIOBILDA, NICHOLAS (1972)</b>	.....	<b>Professor</b>
<i>B.S., West Chester University; M.Ed., Univ. of Delaware; Ph.D., Ohio State University</i>		
<b>GANSKE, KATHY A. (1997)</b>	.....	<b>Professor</b>
<i>B.A., University of Iowa; M.Ed., Ph.D., University of Virginia</i>		
<b>HASIT, CINDI (1992)</b>	.....	<b>Professor</b>
<i>B.A., M.S., Ph.D., University of Pennsylvania</i>		
<b>LEFTWICH, STACEY E. (1999)</b>	.....	<b>Associate Professor</b>
<i>B.A., Glassboro State College.; M.Ed., Temple University; Ph.D., State University of New York, Albany</i>		

ADMINISTRATIVE AND PROFESSIONAL STAFF

<b>MADDEN, MARJORIE (2003)</b> .....	<b>Assistant Professor</b>
<i>B.A., College of William and Mary; M.A., Glassboro State College; Ph.D., University of Pennsylvania</i>	
<b>MARKER, ELAINE S. (2002)</b> .....	<b>Assistant Professor</b>
<i>B.S., Chestnut Hill College; M.Ed., Ed.D., Widener University</i>	

**Secondary Education/Foundations of Education**

<b>BENEVENTO, JACQUELINE D. (1993)</b> .....	<b>Assistant Professor</b>
<i>B.A., Montclair State; M.A., Middlebury College; Ed.D., Temple University</i>	
<b>GALLAGHER, JOHN V. (1975)</b> .....	<b>Associate Professor</b>
<i>B.S., New York University; M.S., State University of New York-Oswego; Ph.D., The Ohio State University</i>	
<b>GALLIA, THOMAS (1970)</b> .....	<b>Professor</b>
<i>B.A., M.A., M.A., Glassboro State College; Ed.D., Rutgers University</i>	
<b>HOLDER, KIT KIM (1993)</b> .....	<b>Assistant Professor</b>
<i>B.A., Hampshire College; M.S., Bank Street College; Ed.D., University of Massachusetts</i>	
<b>JORGENSEN, DONNA W. (2000)</b> .....	<b>Assistant Professor</b>
<i>B.S., West Chester University; M.A. Villanova University; Ed.D., Widener University</i>	
<b>LEVY, LYNNE (1973)</b> .....	<b>Associate Professor</b>
<i>B.S., Mansfield State College; M.S., Drexel University; Ed.D., Rutgers University</i>	
<b>MEYERS, DAVID M. (1996)</b> .....	<b>Associate Professor</b>
<i>B.A., M.Ed., Ph.D., University of Florida</i>	
<b>ORLANDO, FRANK J. (1972)</b> .....	<b>Associate Professor</b>
<i>B.S., M.S., SUNY-Buffalo; Ed.D., West Virginia University</i>	
<b>PERRY, JILL ANN (2001)</b> .....	<b>Assistant Professor</b>
<i>B.S., M.Ed., University of Florida; Ph.D., University of Central Florida</i>	
<b>PHILLIPS, ANNE E. (2001)</b> .....	<b>Assistant Professor</b>
<i>B.A., M.A. Antioch College; Ph.D., University of Pennsylvania</i>	
<b>PIZZILLO, JOSEPH (1971)</b> .....	<b>Professor</b>
<i>B.A., M.A., SUNY-Albany; L.A.S.M.A., Universidad Nacional Autonoma de Mexico; M.S., M.A., Ph.D., University of Wisconsin-Madison</i>	
<b>SHONTZ, MARILYN L. (1999)</b> .....	<b>Associate Professor</b>
<i>A.B., Heidelberg College (Ohio); M.S. in L.S., Case Western Reserve University; Ph.D., Florida State University</i>	
<b>SPEARMAN, PATRICK (2004)</b> .....	<b>Assistant Professor</b>
<i>B.A., Ed.M., University of Cincinnati; Ph.D., Temple University</i>	
<b>SPENCER, JOHN (2003)</b> .....	<b>Assistant Professor</b>
<i>B.A., Brown University; Ph.D., New York University</i>	
<b>TENER, MORTON (1968)</b> .....	<b>Professor</b>
<i>B.S., Rider College; M.S., University of Pennsylvania; M.S., Ed.D., Temple University</i>	

- WASSELL, BETH (2004)** ..... **Assistant Professor**  
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- WILLETT, HOLLY G. (1997)** ..... **Associate Professor**  
*B.A., San Francisco State College; M.L.S., University of California, Berkeley; M.A., Simmons College; Ph.D., University of North Carolina at Chapel Hill*

## Sociology

- ABBOTT, JAMES R. (1990)** ..... **Associate Professor**  
*B.A., University of San Diego; M.A., Ph.D., University of Pennsylvania*
- CARTER, ALLISON (1988)** ..... **Instructor**  
*B.A., University of Pennsylvania; M.A., The New School for Social Research*
- CHASKES, JAY (1969)** ..... **Professor**  
*B.A., University of Toledo; M.A., Ph.D., Temple University*
- GALLANT, MARY J. (1992)** ..... **Associate Professor**  
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- HARTMAN, HARRIET J. (1996)** ..... **Professor**  
*B.A., University of California at Los Angeles; M.A., University of Michigan; Ph.D., Hebrew University of Jerusalem*
- HUTTER, MARK (1974)** ..... **Professor**  
*B.A., M.A., Brooklyn College; Ph.D., University of Minnesota*
- JAMES, HERMAN D. (1982)** ..... **Distinguished Professor**  
*B.S., Tuskegee Institute; M.A., St. John's University; Ph.D., University of Pittsburgh*
- JONES, SANDRA J. (2003)** ..... **Assistant Professor**  
*B.A., Christopher Newport University; M.S.W., Norfolk State University; M.A., Ph.D., Temple University*
- LI, YUHUI (1992)** ..... **Associate Professor**  
*B.A., Sichuan Foreign Languages Institute, China; M.A., Ohio University; Ph.D., Ohio State University*
- MILLER, DEMOND S. (1997)** ..... **Associate Professor**  
*B.A., Northeast Louisiana University; M.S., Ph.D., Mississippi State University*
- MYERS, JOHN (1973)** ..... **Professor**  
*B.S., Drexel University; M.A., Ph.D., Fordham University*
- SOMMO, ANTHONY J. (1992)** ..... **Assistant Professor**  
*B.A., M.A., Ph.D., University of Connecticut; M.S.W., Syracuse University*
- ZAKE, IEVA (2004)** ..... **Assistant Professor**  
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## Special Education Services/Instruction

<b>BIANCO, SHARON DAVIS (1976)</b>	.....	<b>Professor</b>
B.A., Trenton State College; M.Ed., University of Delaware; Ed.D., Temple University		
<b>CAMMAROTA, MARIE (1988)</b>	.....	<b>Associate Professor</b>
B.A., M.A., Glassboro State College; Ed.D., Nova Southeastern University		
<b>EPIFANIO, FRANK (2005)</b>	.....	<b>Assistant Professor</b>
B.A., M.A., Rowan University; Ph.D., Temple University		
<b>FINCH, JOAN (2005)</b>	.....	<b>Assistant Professor</b>
B.A., University of Pennsylvania; M.S., Southern Connecticut State College; Ph.D., Temple University		
<b>FITCH, PAUL JAMES (2003)</b>	.....	<b>Assistant Professor</b>
B.A., Rutgers College; Ed.M., Ed.D., Rutgers Graduate School of Education		
<b>HAMLET, CAROLYN (1984)</b>	.....	<b>Assistant Professor</b>
B.S., University of Tennessee; M.Ed., Memphis State University; Ph.D., Temple University		
<b>HATHAWAY COOK, DONNA (1977)</b>	.....	<b>Professor</b>
B.A., M.A., Glassboro State College; Ed.D., Lehigh University		
<b>IHUNNAH, ANTHONY (1984)</b>	.....	<b>Assistant Professor</b>
B.A., M.A., Marshall University; Ed.D., Virginia Polytechnic Institute and State		
<b>KUDER, JAY (1984)</b>	.....	<b>Professor</b>
B.A. Trinity College; M.Ed., Temple University; Ed.D., Boston University		
<b>McHENRY, SANDRA L. (1993)</b>	.....	<b>Associate Professor</b>
R.N., Helene Fuld School of Nursing; B.A., Rowan College of NJ; M.S., University of Delaware; D.N.Sc., Widener University		
<b>OGNIBENE, GERALD (1972)</b>	.....	<b>Professor</b>
B.A., Niagara University; M.S., Canisius College; Ph.D., Ohio State University		
<b>RIOS, HECTOR M. (1994)</b>	.....	<b>Associate Professor</b>
B.A., University of Puerto Rico; M.S., State University of New York; Ph.D., Temple University		
<b>ROSENBERG, JEROME J. (1973)</b>	.....	<b>Associate Professor</b>
B.A., Oswego State Teachers College; M.A., Columbia University; Ed.D., Temple University; Ph.D., Heed University, West		
<b>SCHMIDT, TANYA (2004)</b>	.....	<b>Assistant Professor</b>
B.A., American University; M.A., University of Maryland; Ph.D., University of Maryland		
<b>SHUFF, MARGARET (1995)</b>	.....	<b>Associate Professor</b>
B.A., M.A., Glassboro State College; Ph.D., University of Delaware		
<b>URBAN, STANLEY (1972)</b>	.....	<b>Professor</b>
B.S., Bridgewater State College; M.A., Western Michigan University; Ph.D., Michigan State University		
<b>WANG, MIAN (2004)</b>	.....	<b>Assistant Professor</b>
B.A., M.Ed., Northeast Normal University; Ph.D., University of Patras; Ph.D., University of Kansas		

<b>WILLIAMS, BARBARA BOLE (2001)</b>	<b>Assistant Professor</b>
<i>B.A., Muskingum College; M.A., M.A., Glassboro State College; Ph.D., Temple University</i>	
<b>XIN, JOY F. (1994)</b>	<b>Professor</b>
<i>B.A., Tsitsihar Teachers College, China; M.Ed., Ed.D., Peabody College of Vanderbilt University</i>	

**Theatre and Dance**

<b>FEDERMAN, SIMONE (2004)</b>	<b>Associate Professor</b>
<i>B.A., Oberlin College; M.F.A., Harvard University</i>	
<b>FUSCO, THOMAS A. (1999)</b>	<b>Assistant Professor</b>
<i>B.A., University of Massachusetts; M.F.A., Boston University</i>	
<b>GRANETO, PHILLIP (1970)</b>	<b>Associate Professor</b>
<i>A.B., Catholic University; M.F.A., Carnegie-Mellon University</i>	
<b>HEALY, BARTHOLOMEW (1985)</b>	<b>Associate Professor</b>
<i>A.B., College of the Holy Cross; M.F.A., New York University</i>	
<b>HOSTETTER, ELISABETH (2000)</b>	<b>Assistant Professor</b>
<i>B.F.A., Virginia Commonwealth University; M.A., University of Texas; Ph.D., University of Missouri</i>	
<b>STEWART, MELANIE (1981)</b>	<b>Professor</b>
<i>B.A., Webster College; M.F.A., Temple University</i>	
<b>TURNER, PAULE LAWRENCE (2000)</b>	<b>Assistant Professor</b>
<i>B.A., Virginia Commonwealth University; M.F.A., Temple University</i>	

**Writing Arts**

<b>BLOCK, RONALD (2003)</b>	<b>Assistant Professor</b>
<i>B.A., University of Nebraska; M.A., M.S., Syracuse University</i>	
<b>CHANG, JULIA (1996)</b>	<b>Associate Professor</b>
<i>B.A., Stonehill College; M.S.J., Columbia University; M.A., Temple University</i>	
<b>COURTNEY, JENNIFER (2004)</b>	<b>Assistant Professor</b>
<i>B.A., Duquesne University; M.A., Western Michigan; Ph.D., Purdue</i>	
<b>DONAHUE, MARY LEE (1983)</b>	<b>Instructor</b>
<i>B.A., University of Tennessee; M.A., University of Connecticut</i>	
<b>GESS, DENISE (2005)</b>	<b>Assistant Professor</b>
<i>B.S., LaSalle University; M.A., Rutgers University</i>	
<b>GIAMPALMI, JOSEPH J (1998)</b>	<b>Assistant Professor</b>
<i>B.A., M.Ed., Widener University, Ed.D Temple University</i>	
<b>HAN, AIGUO (1993)</b>	<b>Assistant Professor</b>
<i>B.A., Xian Foreign Language University; M.A., Ph.D., Indiana University of Pennsylvania</i>	
<b>HARVEY, ROBERTA K (1998)</b>	<b>Assistant Professor</b>
<i>B.A., M.A., Univ. of North Dakota; Ph.D., Univ. Wisconsin-Milwaukee</i>	

ADMINISTRATIVE AND PROFESSIONAL STAFF

<b>HERBERG, ERIN V. (2000)</b>	.....	<b>Assistant Professor</b>
	<i>B.S., B.A., Western Carolina University; M.A., Ph.D., Georgia State University</i>	
<b>ITZKOWITZ, MARTIN (1989)</b>	.....	<b>Associate Professor</b>
	<i>B.A., Brooklyn College; M.A., Ph.D., New York University</i>	
<b>JOHNSON, FRANCES S. (1996)</b>	.....	<b>Associate Professor</b>
	<i>B.A., Christopher Newport University; M.A. Old Dominion; Ph.D., Univ. of Oklahoma</i>	
<b>MANNION, SUSAN (1980)</b>	.....	<b>Instructor</b>
	<i>B.A., College of New Jersey; M.A. Rowan University</i>	
<b>MARTIN, DEB (2003)</b>	.....	<b>Assistant Professor</b>
	<i>B.S., Western Michigan University; M.A., Ph.D., Texas Woman's University</i>	
<b>MAXSON, JEFFREY N. (1994)</b>	.....	<b>Assistant Professor</b>
	<i>B.A., Yale University; M.A., Ph.D., University of California at Berkeley</i>	
<b>PENROD, DIANE (1994)</b>	.....	<b>Professor</b>
	<i>B.S., Medaille College; M.A., Ph.D., Syracuse University</i>	
<b>REAVEY, ROBERTA A. (2004)</b>	.....	<b>Instructor</b>
	<i>B.A., Westfield College; M.A.T.</i>	
<b>ROWAN, JANICE (1976)</b>	.....	<b>Professor</b>
	<i>B.A., Rutgers University; M.A., University of Michigan</i>	
<b>SMITH, SANDRA R (2003)</b>	.....	<b>Instructor</b>
	<i>B.A., University of Redlands; M.A., Rutgers University</i>	
<b>STOLL, DONALD (1992)</b>	.....	<b>Assistant Professor</b>
	<i>B.A., Valparaiso University; M.F.A., University of Texas at Austin; Ph.D., Indiana University</i>	
<b>TWEEDIE, SANFORD M. (1994)</b>	.....	<b>Professor</b>
	<i>B.A., University of Michigan; M.A., Eastern Michigan University; Ph.D., University of Wisconsin-Milwaukee</i>	
<b>WOOD, JOYCE (1972)</b>	.....	<b>Instructor</b>
	<i>B.S., Millersville University; M.A., New York University</i>	
<b>ZEHNER, ROBERTA (1990)</b>	.....	<b>Instructor</b>
	<i>A.B., Rosemont College; M.A., Glassboro State College (Rowan)</i>	

# ORGANIZATION OF THE UNIVERSITY

## BOARD OF TRUSTEES

Rowan University operates under the laws of the State of New Jersey. The Board of Trustees of Rowan University is vested by law with the general supervision of the University within general policies and guidelines pursuant to N.J.S.A. 18A:64 et. seq. Some of the responsibilities of the Trustees are to appoint the University president, to approve the educational curriculum and student services program, and to determine policies for the organization, administration, and development of the University.

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Ms. Barbara Armand .....	Mt. Laurel, NJ
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Mr. Matthew Browne, Student Trustee .....	Glassboro, NJ
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Mr. Michael Ward, Student Trustee .....	Wayne, NJ
Dr. Donald J. Farish, ex-officio .....	Woodbury, NJ

## Administration of the University

Donald J. Farish .....	President
Christy L. Faison .....	Interim Provost
Philip A. Tumminia .....	Special Assistant to the President for University Advancement
Drew Calandrella .....	Vice President for Student Affairs
Richard Hale .....	Interim Vice President for Administration and Finance
Thomas J. Gallia .....	Vice President for University Relations and President's Chief of Staff
Patricia Mosto .....	Interim Associate Provost for Academic Affairs
S. Jay Kuder .....	Associate Provost for Research and Dean of Graduate School
Anthony Mordosky .....	Associate Provost for Information Resources
Robert A. Zazzali .....	Associate Provost for Faculty Affairs

## ADMINISTRATIVE AND PROFESSIONAL STAFF

George Breisford .....Associate Vice President for Student Affairs and Dean of Students  
Joseph F. Scully, Jr. ....Associate Vice President for Finance and Controller  
Eric B. Clark .....Dean, Rowan University at Camden  
Dianne Dorland .....Dean, College of Engineering  
Donald L. Gephardt .....Dean, College of Fine and Performing Arts  
Jay A. Harper .....Dean, College of Liberal Arts and Sciences  
Craig Monroe .....Dean, College of Communication  
Gregory Potter .....Interim Dean of the Library  
Edward Schoen .....Dean, College of Business  
Carol Sharp .....Dean, College of Education

# ADMINISTRATIVE AND PROFESSIONAL STAFF

- ACCIANI, MARY (2000)** ..... **Project Engineer, Facilities Planning**  
*B.S., M.E., Rutgers University*
- ADERINTO, JOHN (1990)** ..... **Assistant Director, Rowan University Bookstore**  
*B.A., M.B.A., Mississippi State University, CSP*
- ALEXAKOS, CONSTANTINE (2005)** ..... **Assistant Director, Student Activities**  
*B.S., University of West Florida; M.A., Rowan University*
- ALVERIO-DORSEY, MELANIE (2001)** ..... **Assistant Director, Student Recreation Center**  
*B.A., M.B.A., Rowan University*
- AMORESANO, FRANK (1988)** ..... **Director, Internal Audit**  
*B.S., Temple University*
- AN, SHARON (2001)** ..... **Cataloging Librarian, Library**  
*B.S., Tianjin Normal University; M.A., Temple University; M.L.S., Drexel University*
- ANDERSON, JAMES (1990)** ..... **Research Assistant, Institutional Research and Planning**  
*B.S., California State; Ph.D., West Virginia University*
- AU, VALERIE (1998)** ..... **Director, Development Information Systems**  
*B.A., University of Hong Kong; M.A.M.C., University of Florida*
- AVILES, JOSE (2001)** ..... **Assistant Director, EOF/MAP**  
*B.A., Rowan University*
- AYRES, SALLY (1982)** ..... **Managing Administrative Assistant, President's Office**  
*A.A., Wesley College*
- AZIKIWE, IFE (1983)** ..... **Coordinator, Support Desk**  
*B.S., Rowan University*
- BAGLIO, JOHN (1980)** ..... **Administrative Analyst, Bursar's Office**  
*B.S., Rider University*
- BASANTIS, MELANIE (1998)** ..... **Director of Outreach, College of Engineering**  
*B.S., Penn State University; M.B.A., Widener University*
- BERGAMO, JOSEPH (1986)** ..... **Planner Estimator, Facilities Planning**
- BETTS, ALBERT (1994)** ..... **Associate Director, Admissions**  
*B.A., M.A., Indiana University of Pennsylvania*
- BLANDING, Z. BENJAMIN (1992)** ..... **Assistant Vice President of  
Student Development, Student Affairs**  
*B.A., South Carolina State University; M.A., Rider University; Psy.D., Florida Institute of Technology*

ADMINISTRATIVE AND PROFESSIONAL STAFF

- BLOCK, LORI A. (1992).....Assistant Director, Career and Academic Planning Center**  
*B.S., University of Scranton; M.P.A., Kutztown University; PHR*
- BLOW, DENNIS (1975).....Administrative Analyst, Bursar's Office**  
*B.A., M.B.A., Glassboro State College (Rowan)*
- BOLAND, KATHERINE (2000) .....Research Assistant, Institutional Research and Planning**  
*B.A., Dickinson College; M.S.W., Boston College*
- BOTNER, LEIGH (2003) .....Grant Writer-Specialist, Government Grants & Sponsored Research**  
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- BRELSFORD, GEORGE (1987) .....Associate Vice President/Dean of Students, Student Affairs**  
*B.S., Davis & Elkins College; M.Ed., Pennsylvania State University*
- BREWER, GLENN (1978) .....Director, Facilities Operations**  
*B.S., Rowan University*
- BRITT, RUBEN (1997).....Assistant Director, Career and Academic Planning Center**  
*B.S., Southern University; M.A., Bloomsburg University*
- BRUNER, RONALD (1999) .....Lab Coordinator, Physics and Astronomy**  
*B.A., Rutgers College; M.A., Temple University*
- BUNDY, ROY E. (2001) .....Assistant Director, EOF/MAP**  
*B.A., Lincoln University; M.A., Eastern Baptist Theological Seminar; Certificate in Supervisory Management, State of New Jersey*
- BUTCHER, RONALD (1991) .....Executive Director, Education Institute**  
*B.S., Western Michigan University; M.A., Eastern Michigan University; Ph.D., University of Michigan*
- CALANDRELLA, DREW (2000).....Vice President, Student Affairs**  
*B.A., M.Ed., College of New Jersey; CAGS, University of Massachusetts at Amherst*
- CARBONARO-DAVEY, MARGUERITE (1977) ..Managing Administrative Assistant, Administration and Finance**
- CARDONA, JOSE (1995) .....Director, University Relations**  
*B.A., M.A., Rowan University*
- CHIN, STEVEN H. (1997) .....Associate Dean, College of Engineering**  
*B.S., Rutgers University; M.S., The John Hopkins University; Ph.D., Rutgers University*
- CIOCCO, MIKE (2003).....Computer Resource Specialist, Instructional Technology**  
*B.S., M.S., Rowan University*
- CLARK, ERIC (1970).....Dean, Camden Campus**  
*B.S., Tufts University; M.A., King School of Social Change, Crozier Theological Seminary; M.A., Ph.D., University of Delaware*
- CLARK, CAROL (1977) .....Head of Cataloging, Library**  
*A.B., Regis College; M.S.L.S., Syracuse University; Ed.M., University of Lowell*

- CLARKE, WILLIAM, III (2000)** ..... **Program Specialist, Secondary Education**  
*B.S., M.A., Glassboro State College (Rowan); Ed.D., Temple University;*
- CLEVELAND, STUART (1987)** ..... **Technician, Network and System Services**  
*B.A., Rowan University*
- COLANDUNO, TED (2003)** ..... **Audiovisual Specialist, Instructional Technology**
- COX, MELISSA (2003)** ..... **Director, Academic Success Center**  
*B.A., Neumann College; M.S., West Chester University; Ed.D., University of Sarasota*
- COZZONE, STEPHANIE (2001)** ..... **Recruitment and Staffing Coordinator, Human Resources**  
*B.S., Rowan University*
- CRAIG, DILLON (2005)** ..... **Research Assistant, Institutional Research and Planning**  
*A.S., Burlington County College; B.S., Rutgers University*
- CRUZ-SOTO, THOMAS (2000)** ..... **Counselor, Camden Campus CHAMP**  
*B.A., Muhlenberg College*
- CUCINOTTA, MARTY (1986)** ..... **Managing Administrative Assistant, Provost's Office**
- CURTIS, JULIE (2003)** ..... **Program Assistant, Human Resources**  
*B.A., Rowan University*
- D'AUGUSTINE, ROBERT (2000)** ..... **Director of Contract Administration & Risk Management,  
Administration & Finance**  
*B.A., M.A., University of Pennsylvania; M.B.A., Rutgers University; J.D., Rutgers School of Law; N.J. Bar  
1997*
- DAMMINGER, JOANNE (1997)** ..... **Executive Assistant to the Vice President, Student Affairs**  
*B.A., M.A., Ed.D., Rowan University*
- DAVID, DEPUE (2002)** ..... **ESL, Camden Campus**  
*B.A., M.A., Ph.D., University of Pennsylvania*
- DEASE, PATRICIA (1980)** ..... **Director, Child Care Center**  
*B.A., M.A., Glassboro State College (Rowan)*
- DEEHAN, CHRISTINE (1999)** ..... **Managing Administrative Assistant, President's Office**  
*B.S., M.A., Rowan University*
- DENTON, KENNETH (1988)** ..... **Network Specialist, Network and System Services**  
*B.S., State University of New York at Albany*
- DePASQUALE, LAWRENCE (1983)** ..... **Administrative Assistant, Music**  
*B.A., M.A., Glassboro State College (Rowan)*
- DICKENS, KEITH (1989)** ..... **Assistant Director, Admissions**  
*B.A., Grambling State University*
- DONAHUE, JOHN P. (1978)** ..... **Programmer/Analyst, Enterprise Information Services**  
*B.A., Rutgers University*
- DORLAND, DIANNE (2000)** ..... **Dean, College of Engineering**  
*B.S., M.S., South Dakota School of Mines and Technology; Ph.D., West Virginia University*

ADMINISTRATIVE AND PROFESSIONAL STAFF

- DOUGHERTY, DENNIS (1999)** Coordinator of Public Relations, College of Fine & Performing Arts  
*B.A., Seton Hall University*
- DUKE, H. KEITH (2001)**.....Associate Director, Purchasing  
*B.S., Rutgers University*
- DWYER, LAURIE (1999)**.....Assistant Director, Student Recreation Center  
*B.A., Rowan College of New Jersey; M.S., University of West Florida*
- EIGENBROT, CAROL (1996)**.....Assistant Director, Career and Academic Planning Center  
*B.S., Springfield College; M.A., Rowan University*
- EIGENBROT, EDWIN (1993)** .....Director of Student Information Services, Student Affairs  
*B.S., M.Ed., Springfield College*
- FAISON, CHRISTY (1987)**.....Interim Provost, Provost's Office  
*B.S., Hampton Institute; M.A., Ohio State University; Ed.D., Temple University*
- FARISH, DONALD J. (1998)** .....President, President's Office  
*B.Sc., University of British Columbia; M.S., North Carolina State University; Ph.D., Harvard University; J.D., University of Missouri*
- FISHER, BENJAMIN (1970)** .....Public Services Librarian, Library  
*B.J., University of Texas; M.A., American University; M.A., Glassboro State College (Rowan); Ph.D., Rutgers University*
- FISHER, JOANNE (1987)** .....Associate Director, Financial Aid  
*B.A., Rutgers University*
- FLOYD, ELAINE (1991)**.....Nurse, Student Health Center  
*R.N., Kings County Hospital School of Nursing*
- FOGLEIN, JOHATHAN (1996)** .....Instrument Coordinator and Safety Officer, Chemistry and Biochemistry  
*B.S., University of New Brunswick; M.S., Queens University*
- FRANDINO, CARL (1981)** .....TV Engineer, College of Communication  
*A.S., Graham Junior College*
- FRESCOLN, CHRISTINE M. (2000)** .....Project Manager, Facilities Planning  
*B.S., B.S., M.S., Drexel University*
- FRIERSON, MURIEL (1990)** .....Registrar, Student Affairs  
*B.A., Chestnut Hill College; M.S., Drexel University*
- GALLASHAW, DERRICK (2004)** .....Counselor, Camden Campus CHAMP  
*B.S., William Patterson University*
- GALLIA, DONNA (2004)** .....Director, Schaub Instructional Materials Center  
*B.A., M.A., Rowan University (Glassboro)*
- GALLIA, THOMAS J. (1970)**.....Vice President for University Relations/President's Chief of Staff, President's Office

B.A., M.A., M.A., Glassboro State College; Ed.D., Rutgers University

**GAYMON, JAMES (1997)** .....**Director, Civic and Governmental Relations**  
B.A., Rowan University; M.A., Rutgers University-Newark

**GEORGE, KEVIN (2004)** .....**Assistant Director, Student Recreation Center**  
B.S., Robert Morris University; M.S., University of Florida

**GEPHARDT, DONALD L. (1990)** .....**Dean, College of Fine and Performing Arts**  
B.M.E., Drake University; B.S., M.S., Juilliard School; Ed.D., Washington University

**GILCHRIST, DORIE (1978)**.....**Director, Graduate Admissions**  
B.A., Penn State University; M.Ed., Temple University

**GILFILLAN, KENNETH (1979)** .....**ESL, Camden Campus**  
B.A., M.A., Rutgers University

**GILMORE, DANIEL (1976)**.....**Assistant Director, Athletics**  
B.A., Plymouth State College; M.A., Eastern Illinois University

**GIUNTA, KAREN (1986)**.....**Managing Administrative Assistant, Provost's Office**

**GOVER, KATHRYN (1999)** .....**Special Assistant to the Vice President, Student Affairs**  
B.A., M.A., Eastern Illinois University; J.D., George Mason University School of Law

**GRAY, SHALANDA (1999)** .....**Computer Resource Specialist, Instructional Technology**  
B.A., Bloomsburg University; M.A., LaSalle University

**GREGG, BELINDA (1983)** .....**Financial Aid Counselor, Camden Campus**  
B.A., Glassboro State College (Rowan)

**HAGAN, ANNE (1997)** .....**Director, Major Gifts & Planned Giving**  
B.A., Indiana University; M.S., Drexel University

**HALE, RICHARD (2005)** .....**Interim Vice-President, Administration and Finance**  
B.A., Brown University; J.D., Vanderbilt University

**HAMILTON, EDWARD J. (1977)**.....**Accountant, Accounting Services**  
B.S., Rutgers University

**HARPER, JAY (1999)** .....**Dean, College of Liberal Arts and Sciences**  
B.S., City College, City University of New York; Ph.D., State University of NY at Stony Brook

**HAYNES, KAREN (1999)**.....**Coordinator of Graduate Admission Services, Graduate School**  
B.A., Glassboro State College (Rowan); M.A., Rowan University

**HENDERSON, JAMES (1989)** .....**Director, Enterprise Information Services**  
B.A., Furman University

**HILLMAN, DAVID JAYSON (2001)** .....**Accountant, Accounting Services**  
B.B.A., Temple University

**HOGAN, FRANK (1991)** .....**General Manager, WGLS, College of Communication**  
A.A.S., Cleveland Institute; Certified Professional Broadcast Engineer, S.B.E.

ADMINISTRATIVE AND PROFESSIONAL STAFF

- HOGAN, ALISA (1998)** .....**Assistant Director, Admissions**  
*B.A., Glassboro State College; M.A., Rowan University*
- HOLLOWAY, KATHY (1987)** .....**Interim Director, Human Resources**  
*B.S., Glassboro State College (Rowan)*
- HOLMES, JUDITH (1988)** .....**Head Reference Librarian, Library**  
*B.A., Marymount College; M.A., Glassboro State College (Rowan)*
- HOLSWORTH, KATHERINE (2000)** .....**Assistant Director, Financial Aid**  
*B.A., M.S., Lycoming University*
- HOLZER, SIDNEY (1979)** .....**Accountant, Bursar's Office**  
*B.A., Glassboro State College (Rowan); M.B.A., Monmouth College*
- HUGHES, KARLTON (1994)** .....**Computer Resource Specialist, Instructional Technology**  
*B.S., Rowan University; M.A., Pepperdine University*
- IACONELLI, BLASE (2003)** .....**Project Manager, Facilities Planning**  
*B.A., Temple University; M.B.A., Weidner University*
- IACOVONE, JAMES R. (1974)** .....**Associate Director, Payroll**  
*B.S., LaSalle University*
- IMPERATORE, JOHN (2000)** .....**Director, Facilities Planning Resource Management**  
*B.S.M.E. Drexel University*
- JACKSON, PATRICIA (2000)** .....**Laboratory Technician, Chemistry and Biochemistry**
- JACKSON, WAYNE (2005)** .....**Assistant Director, EOF/MAP**
- JENNINGS, ANTOINETTE (1981)** .....**Assistant Director/Counselor, EOF/MAP**  
*B.S., Penn State University; M.A., University of Pittsburgh*
- JOYCE, KIMBERLY (2005)** .....**Assistant Director , Service Learning & Volunteerism**  
*B.A., Rutgers University; M.A., Rowan University*
- KAMMER, CYNTHIA (1984)** ..**Assistant Director, Counseling and Psychological Services Center**  
*B.A., M.A., Glassboro State College (Rowan)*
- KAPUS, CURT (2000)** .....**Art Director, University Publications**  
*B.A., Rowan University*
- KATZ, CRAIG (2001)** .....**Director, International Student Services**  
*B.A., Rutgers University; Ed.M., Temple University*
- KERN, ROBERT (1999)** .....**Director, Office of Field Experiences**  
*B.A., M.A., Rowan University; Ed.D., Nova Southeastern University*
- KESSEL, STEVEN (1996)** .....**Professional Services Specialist, Registrar**  
*B.F.A., Southern Methodist University*
- KIFFERLY, PAIGE (2003)** .....**Counselor, Camden Campus CHAMP**  
*B.A., Rutgers University*

<b>KLEIN, BRUCE (1992)</b> .....	<b>Director, Network and System Services</b>
<i>B.S., Glassboro State College (Rowan)</i>	
<b>KLOSKEY, THOMAS (1977)</b> .....	<b>Coordinator, College of Communication</b>
<i>B.A., M.A., Temple University</i>	
<b>KORDEN, MARY (1988)</b> .....	<b>Director of Preschool, Camden Campus</b>
<i>B.A., Glassboro State College (Rowan)</i>	
<b>KOZAK, ANDREW (1988)</b> .....	<b>Associate Supervisor, Facilities Operations Administrative Services and Procurement</b>
<i>B.A., M.A., Glassboro State College (Rowan); C.A.G.S., Temple University; C.P.M., Rutgers University</i>	
<b>KRAMER, BARRY (1999)</b> .....	<b>Director, Management Institute</b>
<i>B.A., City College of New York; M.A., University of Missouri</i>	
<b>KUDER, SIDNEY JAY (1984)</b> .....	<b>Associate Provost for Research/Dean of Graduate School, Research and Graduate School</b>
<i>B.A., Trinity College; M.Ed., Temple University; Ed.D., Boston University</i>	
<b>KUERZI, KEN (1994)</b> .....	<b>Director, Labor Relations</b>
<i>B.S., J.D., Florida State University</i>	
<b>KUHLEN, JOHN (1987)</b> .....	<b>Associate Director, Facilities Accounting &amp; Procurement</b>
<i>B.A., M.B.A., Glassboro State College (Rowan)</i>	
<b>LATHROPE, WENDY (2000)</b> .....	<b>Assistant Director, Alumni Relations</b>
<i>B.A., Rowan University; M.A., Rowan University</i>	
<b>LAW, FRANCES (1986)</b> .....	<b>Managing Administrative Assistant, University Advancement</b>
<i>B.A., Rowan University</i>	
<b>LEWIS, JEANNE (1988)</b> .....	<b>Assistant Director, Admissions</b>
<i>B.A., Glassboro State College (Rowan)</i>	
<b>LIPARTITO, ROBERT (2001)</b> .....	<b>Music Librarian, Wilson Hall Library</b>
<i>B.M., Glassboro State College; M.M., Manhattan School of Music; M.L.S., Queens College (CUNY)</i>	
<b>LISA, ANTHONY (1978)</b> .....	<b>Assistant Director, Athletics</b>
<i>B.A., M.S., Glassboro State College (Rowan)</i>	
<b>LISOWSKI, JOSEPH (1988)</b> .....	<b>System Administrator, Network and System Services</b>
<i>B.A., Edison College</i>	
<b>LOMBARDO, NATALIE (2001)</b> .....	<b>Grants Accountant, Budget</b>
<i>B.S., St. Joseph's University</i>	
<b>LOVEGROVE, JAMES (1982)</b> .....	<b>Associate Director, Accounts Payable/Long Range Planning</b>
<i>B.S., Glassboro State College (Rowan)</i>	
<b>LUKASAVAGE, MICHAEL (1995)</b> .....	<b>Supervisor, Duplicating Services</b>
<b>LYNCH, CINDY (1980)</b> .....	<b>Assistant Dean, College of Liberal Arts and Sciences</b>
<i>B.A., M.A., Glassboro State College (Rowan)</i>	

ADMINISTRATIVE AND PROFESSIONAL STAFF

- MacARTHUR, QUINTON (2002)** .....**Assistant Director, Admissions**  
*B.A., Morehouse College*
- MALLORY-CHURCH, JULIE (1982)** ....**Assistant Director, Counseling and Psychological Services Center**  
*B.A., Creighton University; M.S.S.A., University of Chicago*
- MARGOLIS, JEFFREY (2002)**.....**Program Specialist, Elementary Education**  
*B.S., Temple University; M.A., Rowan University*
- MARKEL, CATHY (2001)** .....**Assistant Director, University Marketing**  
*B.A., Marywood University*
- MARLIN, BRENDA (1987)** .....**Coordinator of Graduate Advisement Services, Graduate School**  
*B.S., Southern Illinois University; M.A., Rowan University*
- MARSHALL, LORI (1992)**.....**Director, University Publications**  
*B.S., Evangel College; M.A., Rowan University*
- MATALUCCI, MARK (1987)** .....**Coordinator of Testing, Academic Success Center**  
*B.A., Glassboro State College (Rowan)*
- MATEO, LESLEY J. (2001)** .....**Services Supervisor, Human Resources**  
*B.A. M.A., Rutgers University*
- MAZZEI, DIANE (2003)** .....**Director, Beginning Teachers Induction Center**  
*B.A., M.A., Rowan University*
- McCAFFERTY, JACQUELINE (2003)**.....**Director of ESL and Basic Skills, Camden Campus**  
*B.A., Ithaca College; M.S.Ed., Temple University; CELTA Teaching Certificate, Cambridge University*
- McCALL, MARIA (1994)** .....**Assistant Director, Budget**  
*B.S., St. Joseph's University*
- McCALL, SALLY (1977)**.....**Director, Budget**  
*B.S., Drexel University*
- McCALLEY, ANDREW (1987)** .....**Construction Management Specialist, Facilities Planning**  
*A.A.S., Gloucester County College*
- McCOMBS, TYRONE (2001)**.....**Associate Dean, Camden Campus**  
*B.A., M.A., Rutgers University; Ph.D., University of Pennsylvania*
- McCULLY, ANNETTE (1989)**.....**Assistant Director, Residence Life**  
*B.A., M.A., Glassboro State College (Rowan)*
- McGEE, STUART (1975)** .....**Theatre Arts Manager, College of Fine & Performing Arts**  
*B.A., University of Pennsylvania; M.F.A., Temple University*
- McHUGH, YVONNE (1995)**.....**Nurse, Student Health Center**  
*R.N., Deanza College; A.A., Bucks County Community College*
- MEREDITH, PHYLLIS (1987)** .....**Public Services Librarian, Library**  
*B.A., Fayetteville State University; M.L.S., Atlanta University*

- MEYERS, DAVID MARK (1996)** ..... **Associate Dean, College of Education**  
*B.A., M.Ed., Ph.D., University of Florida*
- MICHENER, TIMOTHY (2002)** ..... **Director, Public Safety**  
*B.S., Kutztown State University; M.S., West Chester State; Ph.D., Walden University*
- MIKE, DORRIS (2003)** ..... **Computer Resource Specialist, Instructional Technology**  
*B.S., Rowan University*
- MILLER, ALLEN (1976)** ..... **Chief Engineer, WGLS, College of Communication**  
*B.S., M.S., SUNY-Oswego*
- MILLER, DEMOND S. (1997)** ..... **Director, College of Liberal Arts and Sciences**  
*B.A., Northeast Louisiana University; M.S., Ph.D., Mississippi State University*
- MILLER, KEVIN (2003)** ..... **Computer Resource Specialist, Instructional Technology**  
*B.S., Rowan University*
- MILLS, JOHN T. (1992)** ..... **Acting Director, EOF/MAP**  
*B.S., M.A., Glassboro State College (Rowan)*
- MONROE, CRAIG (2003)** ..... **Dean, College of Communication**  
*B.A., University of Central Oklahoma; M.S., Emporia Kansas State University; Ph.D., University of Nebraska*
- MORAN, EILEEN (1995)** ..... **Director, Development**  
*B.A., St. Michael's College; M.S., Worcester State College*
- MORDOSKY, ANTHONY (2000)** ..... **Associate Provost, Information Resources**  
*B.S., Kutztown State University; B.S., Millersville State College; M.B.A., Temple University*
- MORRIS, MARJORIE (1975)** ..... **Head of Music Branch Library, Wilson Hall Library**  
*B.A., University of Pennsylvania; M.S., Drexel University*
- MORROW, EILEEN (1992)** ..... **Director, Rowan University Bookstore**  
*B.A., Wilkes College; M.A., Bucknell University; CSP*
- MOSTO, PATRICIA (1993)** ..... **Interim Associate Provost for Academic Affairs, Provost's Office**  
*National Teacher Certification, Teachers College N6; Licenciada in Biology (M.S.), University of Buenos Aires; M.A. equivalent, The University of Texas at Austin; M.S., Drexel University; Ph.D., University of Buenos Aires*
- MULDOON, KEVIN (2000)** ..... **Project Manager, Facilities Planning**  
*B.S., Stockton College*
- MULLENS, CYNTHIA (1980)** ..... **Head of Interlibrary Loan, Library**  
*B.A., Belmont College; M.L.S., George Peabody College for Teachers*
- MULLENS, JOHN (1987)** ..... **Systems Manager, Library**  
*B.A., Belmont College; M. Div., Midwestern Baptist Theological Seminary*
- MULLIGAN, JOSEPH (2004)** ..... **Assistant Dean of Students, Judicial Affairs**  
*B.A., M.A., West Chester University*

ADMINISTRATIVE AND PROFESSIONAL STAFF

- MUMMERT, ESTHER (1989)** .....Coordinator for Academic Advising, College of Communication  
*B.S., East Stroudsburg University; M.A., Shippensburg University*
- MURPHY, DANIEL (1996)** .....Assistant Director, University Publications  
*B.A., George Washington University; M.A., Rowan University*
- MURPHY, SUSAN (2000)** .....Coordinator, Development Publications  
*B.A., College of New Jersey; M.A., Rowan University*
- MUZYCZEK, GLADYS E. (1975)** .....Assistant Director, Camden Campus Admissions  
*B.A., Glassboro State College (Rowan)*
- NORTON, RICHARD (1997)** .....Laboratory Technician, Chemistry and Biochemistry  
*B.S., Rowan University; M.S., University of Maryland*
- NURKOWSKI, LUCIA (1977)** .....Associate Director, Admissions  
*B.A., M.Ed., Boston College; Ed.D., Widener University*
- O'LEARY, KATHLEEN (1988)** .....Theatre Arts House Manager, College of Fine & Performing Arts  
*B.A., Glassboro State College (Rowan)*
- O'LEARY, SEAN (1999)** .....Film Production Coordinator, College of Communication  
*B.A., M.A., Rowan University*
- PEREZ-COLON, MARIA (2003)** .....Administrative Assistant, College of Engineering  
*B.A., Rutgers University*
- PETERSON, JULIE (1977)** .....Special Assistant to the Vice President, Student Affairs  
*B.A., M.Ed., Trenton State College*
- PINOCCI, TINA (1992)** .....Assistant Vice President, Student Life  
*B.S., M.Ed., Frostburg State College*
- PINDER, ANNE (2003)** .....Manager of University Support Systems EIS  
*B.S., Rowan University; M.A., Certification Information Management, Stevens Institute of Technology*
- POLAK, HELEN E. (2001)** .....Staff Psychologist, Counseling and Psychological Services Center  
*B.A., Rutgers University; M.A., Psy.D., Indiana University of Pennsylvania*
- PONTES, NANCY (2003)** .....Director, Student Health Center  
*B.S.N., Pensacola Christian College, M.S.N., University of Florida; D.N.Sc., Columbia University*
- POTTER, GREGORY (1969)** .....Interim Dean, Library  
*B.A., University of Pennsylvania; M.S.L.S., Villanova University; M.A., Glassboro State College (Rowan); Ed.D., Rutgers University; Certified Public Manager, State of New Jersey*
- PREVITI, DIANE (1979)** .....Assistant Director, Registrar  
*A.A.S., Gloucester County College*
- PRITCHETT, FREDA (1975)** .....Counselor, Camden Campus CHAMP  
*B.A., Glassboro State (Rowan); M.A. Rowan University*

- PUSTIZZI, DERRELL (1999)** ..... **Professional Services Specialist, Registrar**  
*B.S., Rowan University*
- PUSTIZZI, RICHARD (1984)** ..... **Supervisor of Postal Services, Administration and Finance**
- QUIGLEY, PATRICIA (1999)** ..... **Assistant Director, University Relations**  
*B.A., Rowan University*
- RAFFA, SAMUEL SR. (1988)** ..... **Assistant Director, Labor Relations**
- REEVE, JULIA (1988)** ..... **Managing Administrative Assistant, President's Office**
- REIGEL, DAN (2004)** ..... **Assistant Director, Admissions**  
*B.A., M.A., Rowan University*
- RIGDON, JOYCE (1988)** ..... **Director, Institutional Research and Planning**  
*B.A., North Park College; M.P.A., Roosevelt University; Ph.D., Southern Illinois University at Carbondale*
- ROBINSON, FAYE (2000)** ..... **Public Services Librarian, Library**  
*B.A., Glassboro State College (Rowan); M.A., Rowan University*
- ROBINSON, JOHN H. (2003)** ..... **Unix Systems Administrator, Computer Science**  
*B.S., Rowan University; M.S., New Jersey Institute of Technology*
- ROBINSON, JOHN (1997)** ..... **Computer Network Specialist, Information Resources**  
*B.A., Rowan University*
- ROLON, ANNABEL (2001)** **Managing Administrative Assistant, Civic and Governmental Relations**
- ROSENBERGER, ROMINE (1999)** ..... **Public Services and Business Librarian, Library**  
*B.S., Longwood College; M.S., Virginia Commonwealth University; M.A., Rowan University*
- ROZANSKI, KATHY (1990)** ..... **Director, Alumni Relations**  
*B.A., Glassboro State College (Rowan)*
- SAHM, GEORGETTE (1999)** ..... **Courseware Development Specialist, Instructional Technology**  
*B.A., Rowan University; M.A., Philadelphia University*
- SAHM, J. HAROLD (1977)** ..... **Assistant Director, Education Institute**  
*B.S., Millersville State University; M.A.T., Ed.D., Rutgers University*
- SCHMELZ, NICHOLAS (1974)** ..... **Program Specialist, Special Education**  
*B.A., Bloomfield College; M.A., Seton Hall University*
- SCHOEN, EDWARD J. (1999)** ..... **Dean, College of Business**  
*B.S., LaSalle University; J.D., Georgetown University Law Center*
- SCHOEN, MARGARET (2003)** ..... **Director, Government Grants & Sponsored Research**  
*B.S., King's College; M.S., College of Misericordia*
- SCOTT, EILEEN (1999)** ..... **Associate Director, Human Resources**  
*B.S., Rowan University*
- SCULLY, JOSEPH F., JR. (2000)** **Associate Vice President/Controller, Administration and Finance**  
*B.S., M.B.A., LaSalle University; CPA*

ADMINISTRATIVE AND PROFESSIONAL STAFF

<b>SEAGREN, RUSSELL (2003)</b>	.....	<b>Director, Facilities Planning</b>
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B.A., Glassboro State College (Rowan)		
<b>SEDLOCK, MARK (1997)</b>	.....	<b>Computer Network Specialist, Network and System Services</b>
B.A., Rowan University		
<b>SENULA, ROSA LIA (1999)</b>	.....	<b>HRIS Specialist, Human Resources</b>
A.S., Centennial College		
<b>SHARP, CAROL (1987)</b>	.....	<b>Dean, College of Education</b>
B.A., Glassboro State College; M.A., William Paterson College; Ph.D., Penn State University		
<b>SHIKARZY, SUZANNE (2000)</b>	.....	<b>Teacher, Preschool, Camden Campus</b>
B.A., Rowan University		
<b>SHOWERS, MARK (1978)</b>	.....	<b>Assistant Supervisor I, Facilities Operations</b>
B.S., Thomas Edison State College		
<b>SIDOTTI, PHILIP (2002)</b>	.....	<b>Assistant Director, Office of Field Experiences</b>
B.A., M.A. Rowan University		
<b>SIEFRING, KAREN (1983)</b>	.....	<b>Assistant to the Dean for Student Advisement, College of Business</b>
B.A., Douglass College; M.A., Glassboro State College (Rowan)		
<b>SILLS, MARVIN (1972)</b>	.....	<b>Assistant Vice President, Admissions</b>
B.A., Glassboro State College (Rowan)		
<b>SILVA, IVELISSE (2000)</b>	.....	<b>Assistant Director/Counselor, Camden Campus EOF</b>
B.A., M.S.W., Rutgers University		
<b>SMALL, KATHLEEN (1977)</b>	.....	<b>Program Specialist, Elementary Education</b>
B.A., M.A., Glassboro State College (Rowan)		
<b>SMILEY, JANINE (2000)</b>	.....	<b>Benefits Coordinator, Human Resources</b>
B.A., Temple University		
<b>SNYDER, MARK (1976)</b>	.....	<b>Programmer/Analyst, Enterprise Information Services</b>
B.S.T., Spring Garden College		
<b>SNYDER, REBECCA S. (1998)</b>	Development Research Analyst, Development Information Systems	
B.A., Rowan University		
<b>SNYDER, RICHARD (1979)</b>	.....	<b>Associate Director, Accounting Services</b>
B.S., Glassboro State College (Rowan); M.B.A., Rowan University		
<b>SOLOMEN, JOY (1986)</b>	.....	<b>Athletic Director, Athletics</b>
B.A., M.A., Glassboro State College (Rowan)		
<b>SPENCER, JAMES (1999)</b>	.....	<b>Coordinator, Annual Fund</b>
B.S., B.M., Clarion University (formerly Clarion State College); M.S., Villanova University		

- SPENCER, JEROME (1997) .....Lab Coordinator, Computer Science**  
*B.S., University of North Carolina at Chapel Hill; M.B.A., Cornell University*
- SPINELLA, GLORIA (2001) .....Program Specialist, P-3, Co-Teach Education**  
*B.A., Rowan University; M.Ed.D., Temple University*
- STEELE, JUANITA (1986) .....Managing Administrative Assistant, Administration and Finance**
- STEVENSON, SHEILA (1985) .....Director, Sports Information**  
*B.A., Rochester Institute of Technology*
- STEWART, DOROTHY (1974) .....Administrative Assistant, Bursar's Office**  
*B.A., Rowan University*
- STILL-DAVIS, WINIFRED (1980) .....Assistant Director, Financial Aid**  
*B.A., M.A., Glassboro State College (Rowan)*
- STOLL, PATRICIA ALEXY (1984) .....Associate Director for MIS/Certification Specialist, College of Education**  
*B.A., M.A., Glassboro State College (Rowan); Ed.D., Widener University*
- STRATTIS, ELLA (1993).....Government Documents Librarian, Library**  
*B.A., Niagara College; M.L.S., Drexel University*
- STUBBS, MARGUERITE (1970) ....Executive Assistant to Vice President for University Relations, President's Office**  
*B.A., Glassboro State College (Rowan); M.Ed., Temple University*
- STUTZBACH, EILEEN (1986) .....Curriculum Development Specialist, Instructional Technology**  
*B.A., Rutgers University*
- SULLIVAN-WILLIAMS, LIZZIEL (1976) ....Interim Director, Career and Academic Planning Center**  
*B.A., Glassboro State College (Rowan); M.A., Antioch University*
- SURACE, VINCENT (2004) .....Facility and Operations Coordinator, Student Center**  
*B.A., Rowan University*
- SWEETEN, LINDA C. (1992).....Assistant Dean, College of Communication**  
*B.A., Trenton State College; M.Ed., University of Delaware*
- TARTAGLIONE, PHILIP (1972).....Bursar, Administration and Finance**  
*B.S., LaSalle University*
- TAVAREZ, LUIS (1998) .....Director, Financial Aid**  
*B.A., Glassboro State College (Rowan); M.A., Thomas Edison State College*
- TAYLOR, TYRONE (1978) .....Managing Assistant Director, Public Safety**  
*B.S., Glassboro State College (Rowan); M.A., Rowan University*
- TODD, FRANK (1972).....Audiovisual Coordinator, College of Fine & Performing Arts**
- TOOTH, JILLIAN (2004) .....Program Assistant, Human Resources**  
*B.A., Rowan University*

ADMINISTRATIVE AND PROFESSIONAL STAFF

- TOPORSKI, NEIL (2003)** .....**Director, Instructional Technology**  
*B.S., University of Wisconsin-Madison; M.S., Clarion University; Ed.D., Lehigh University*
- TRAN, JAY (1998)** .....**Assistant Director/Counselor, Camden Campus EOF**  
*B.A., Trenton State College; M.A. Rowan University*
- TUMMINIA, PHILIP (1969)** .....**Special Assistant to the President, University Advancement**  
*B.A., College of New Jersey; M.A., Rowan University; Ed.D., Temple University*
- TURNER, VANETTA (2000)** .....**Associate Director, Human Resources**  
*B.A. Penn State University; M.S. Central Michigan University*
- TYRAN, FRAN (2001)** .....**Professional Services Specialist, Financial Aid**
- VAN BRUNT, MARGARET (1995)** .....**Assistant Dean, College of Business**  
*B.S., Rutgers University; CPA*
- VEACOCK, PEGGY (1983)** .....**Executive Assistant, University Advancement**  
*B.A., Rowan University*
- VELEZ-YELIN, JOHANNA (1990)** .....**Associate Director, Academic Success Center**  
*B.A., InterAmerican Univ., San Juan, Puerto Rico; M.A., Glassboro State College (Rowan); Ed.D., Widener University*
- WADLEIGH, RICHARD (1988)** .....**Associate Director, Public Safety**  
*B.G.S., University of Nebraska*
- WAGENER, MARK (1988)** .....**Director Housing and Business Services, Student Affairs**  
*B.A., B.S., M.B.A., Glassboro State College (Rowan)*
- WAGNER, FRANK J. (1997)** .....**Laboratory Director, Biological Sciences**  
*B.S., Kean College; M.S. Thomas Jefferson Medical College*
- WALKO, KAREN (1990)** .....**Programmer/Analyst, Information Resources**  
*A.A.S., Camden County College; B.A., Glassboro State College (Rowan)*
- WANG, JIN (2003)** .....**Associate Dean, College of Liberal Arts and Sciences**  
*B.A., Zhongshan University (China); M.A., Ohio University; Ph.D., Kansas State University*
- WEDLER, JEANINE (2005)** .....**Assistant Director , Student Center**  
*B.A., M.A., Rowan University*
- WENRICH, KEITH (1996)** .....**Director, Student Recreation Center**  
*B.S., Susquehanna University; M.S., University of Southern Mississippi*
- WIGFALL, WINONA (1989)** .....**Coordinator, Camden Campus CHAMP**  
*B.A. Union College; M.A. Rowan University*
- WILBUR, CATHERINE (1987)** .....**Associate Director, Human Resources**  
*B.S., M.S., St. Joseph's University*
- WILLIAMS, RICHARD A. (1984)** .....**EEO/AE Officer, Human Resources**  
*B.A., Lincoln University; M.Ed., Trenton State College*

- WILSON, BONNIE (2001)** .....Coordinator, Academic Success Center  
*B.A., Glassboro State College (Rowan); M.A., Rowan University*
- WILSON, RONNETTE (1998)** .....TV Production Coordinator, College of Communication  
*A.A.S., Mater Dei College; B.A., M.A., Rowan University*
- YOVNELLO, NICHOLAS (1970)** .....Assistant Director for Technical Services, Library  
*B.A., M.A., Glassboro State College (Rowan)*
- ZAZZALI, ROBERT (1973)** .....Associate Provost for Faculty Affairs, Provost's Office  
*B.A., M.A., Glassboro State College (Rowan); M.A., Rutgers University*
- ZIEGLER, EDWARD (1972)** .....Director, University Marketing  
*B.A., Trenton State College; M.A., Glassboro State College (Rowan)*
- ZORZI, MARK THOMAS (2005)** .....Senior Buyer, Purchasing  
*B.S., Rowan University; M.B., Stockton State College*

# THE EMERITI

<b>ADAMS, ETHEL M. (1968-1984)</b>	<b>Professor</b>
<i>Psychology</i>	
<i>B.A., Eastern Michigan Univ.; M.A. Univ. of Michigan; Ed.D., Univ. of Pennsylvania</i>	
<b>ADDISON, CAROLYN (1967-1991)</b>	<b>Professor</b>
<i>Health &amp; Physical Education</i>	
<i>B.S., James Madison Univ.; M.A. New York Univ.; Ed.D., Temple University</i>	
<b>ALVINO, ESTHER (1966-1987)</b>	<b>Assistant Professor</b>
<i>Elementary Education</i>	
<i>B.A., M.A., Glassboro State College</i>	
<b>AMBACHER, RICHARD J., JR. (1967-2000)</b>	<b>Professor</b>
<i>Communication Studies</i>	
<i>B.A., Glassboro State College; M.F.A., Yale University</i>	
<b>AMME, LINDA (1968-1990)</b>	<b>Assistant Professor</b>
<i>Special Ed. Serv./Instruction</i>	
<i>B.A., M.A., Glassboro State College</i>	
<b>ANDERSEN, DONALD (1970-1998)</b>	<b>Assistant Professor</b>
<i>Special Ed. Serv/Instruction</i>	
<i>B.A., M.Ed., Rutgers University</i>	
<b>AUGUST, BERNARD B. (1964-1976)</b>	<b>Assistant Professor</b>
<i>Mathematics</i>	
<i>B.S., M.A., University of Pennsylvania</i>	
<b>AVRIL, EDWIN (1959-1982)</b>	<b>Professor</b>
<i>Music</i>	
<i>B.A., San Francisco State College; M.A., Ed.D., Teachers College, Columbia University</i>	
<b>BARTELT, PEARL W. (1972-1999)</b>	<b>Professor</b>
<i>Sociology and Dean</i>	
<i>B.S., M.A., Ph.D., Ohio State University</i>	
<b>BENDER, AARON (1964-1991)</b>	<b>Professor</b>
<i>History</i>	
<i>B.A., Brooklyn College; M.A., Ph.D., New York University</i>	
<b>BENNETT, RENEE (1963-1983)</b>	<b>Assistant Professor</b>
<i>Elementary Education</i>	
<i>B.S., Rider College; M.A., Glassboro State College</i>	
<b>BEVERLY, LEAH (1958-1984)</b>	<b>Professor</b>
<i>Health and Physical Education</i>	
<i>B.S., Southwestern Louisiana College; M.A., N.Y.U.; Ed.D., Univ. of So. Mississippi</i>	

<b>BIANCHI, JOHN (1967-1990)</b>	<b>Education and Coordinator of Research</b>
<i>B.S., Villanova Univ.; M.Ed., Rutgers Univ.; Ed.D., Temple University</i>	
<b>BISAZZA, GAETANO R. (1966-2000)</b>	<b>Assistant Professor</b>
<i>Biological Sciences</i>	
<i>B.S., LaSalle College; M.S. Villanova University</i>	
<b>BLANKEN, MAURICE (1957-1982)</b>	<b>Associate Professor</b>
<i>Economics and Political Science</i>	
<i>B.A., Drew University; M.A., Columbia University</i>	
<b>BLOUGH, ROBERT (1963-1995)</b>	<b>Professor</b>
<i>Elementary Education</i>	
<i>B.S., Juniata College; M.Ed., Temple University; Ed.D., University of Pennsylvania</i>	
<b>BOLAY, BRENDA (1968-1997)</b>	<b>Associate Professor</b>
<i>Health and Exercise Science</i>	
<i>B.A., University of Michigan; M.Ed., State University of New York, Buffalo; Ph.D., University of Maryland</i>	
<b>BORGEN, EVELYN (1965-1991)</b>	<b>Professor</b>
<i>Elementary/Early Childhood Education</i>	
<i>B.S., Monmouth College; M.A., Glassboro State College; Ed.D., Fairleigh Dickinson Univ.</i>	
<b>BOROWEC, ALEXANDER (1956-1988)</b>	<b>Professor</b>
<i>Physical Sciences</i>	
<i>B.S., Trenton State College; M.S., Univ. of Pennsylvania; Ed.D., Temple University</i>	
<b>BRENT, GEORGE (1971-2003)</b>	<b>Professor</b>
<i>Elementary/Early Childhood Education</i>	
<i>B.A., Ed.M., Boston University; Ed.D., University of Massachusetts</i>	
<b>BRESLIN, FREDERICK (1960-1991)</b>	<b>Professor</b>
<i>Psychology</i>	
<i>B.A., Queens College; M.A., Ph.D., New York University</i>	
<b>BRINKER, BEULAH (1960-1984)</b>	<b>Assistant Professor</b>
<i>Elementary Education</i>	
<i>B.S., Glassboro State College; M.A., New York University</i>	
<b>BRITTON, PEARL E. (1968-1977)</b>	<b>Professor</b>
<i>Health and Physical Education</i>	
<i>B.S., Cortland State College; M.Ed., Ed.D., University of Buffalo</i>	
<b>BROOKS, ELLAIN (1965-1983)</b>	<b>Assistant Professor</b>
<i>Math/Computer Science</i>	
<i>B.S., North Carolina State; M.A., Columbia University</i>	
<b>BROWN, ESTELLE (1962-1992)</b>	<b>Professor</b>
<i>Reading/Speech Correction</i>	
<i>B.S., M.A., Glassboro State College; Ed.D., Temple University</i>	

THE EMERITI

<b>BUZASH, GABRIEL (1964-1981)</b>	.....	<b>Professor</b>
<i>Elementary Education</i>		
<i>B.S., Slippery Rock State College; M.S., Westminster College; Ed.D., Penn State University</i>		
<b>BYRER, JOSEPH (1968-1995)</b>	.....	<b>Assistant Professor</b>
<i>Technology</i>		
<i>B.S., M.S., Indiana State University</i>		
<b>CALLIARI, CARL (1968-2004)</b>	.....	<b>Professor</b>
<i>Education</i>		
<i>B.A., M.A., Glassboro State College; Ed.D., Temple University</i>		
<b>CELL, HOWARD R. (1967-2000)</b>	.....	<b>Professor</b>
<i>Philosophy/Religion</i>		
<i>B.S., University of Wisconsin; M.A., San Jose University; Ph.D., Temple University</i>		
<b>CHAMBERLAIN, MARK M. (1969-2000)</b>	.....	<b>President Emeriti</b>
<i>B.S., Franklin and Marshall College; Ph.D., University of Illinois</i>		
<b>CIMPRICH, JACK R. (1973-1998)</b>	.....	<b>Associate Professor</b>
<i>Computer Science</i>		
<i>B.A., Boston College; M.S. Eng., University of Pennsylvania</i>		
<b>CLAPP, ROBERT A. (1969-2000)</b>	.....	<b>Assistant Professor</b>
<i>Theatre and Dance</i>		
<i>B.A., Pennsylvania State University; M.A., Syracuse University</i>		
<b>CLAY, KENNETH (1965-1991)</b>	.....	<b>Professor</b>
<i>Technology/Dean of Academic Administration</i>		
<i>B.S., Millersville State College; M.A., Ball State Univ.; Ed.D., Michigan State University</i>		
<b>COHEN, STANLEY (1961-1984)</b>	.....	<b>Professor</b>
<i>Educational Administration</i>		
<i>B.S., Rutgers University; M.Ed., Ed.D., Temple University</i>		
<b>COLLINS, JOHN (1963-1994)</b>	.....	<b>Professor</b>
<i>Communications</i>		
<i>B.S., West Chester State College; M.A., Penn State University; Ed.D., Temple University</i>		
<b>COLLINS, JOHN J. (1969-1999)</b>	.....	<b>Professor</b>
<i>Educational Leadership</i>		
<i>B.A., M.A., Glassboro State College; J.D., Rutgers University</i>		
<b>COMBS, ETHEL (1967-1995)</b>	.....	<b>Associate Professor</b>
<i>Reading/Speech Correction</i>		
<i>B.A., Douglass College; M.A., Glassboro State College; Ph.D., Temple University</i>		
<b>CONRAD, GEORGE (1958-1979)</b>	.....	<b>Professor</b>
<i>Art</i>		
<i>B.S., New York University; M.A., Ed.D., Columbia University</i>		

<b>CORCORAN, JOHN (1961-1991)</b>	Professor
<i>Reading/Speech Correction</i>	
<i>B.A., Ursinus College; M.A., Glassboro State College; Ph.D., Temple University</i>	
<b>COVI, ADELYNE (1964-1984)</b>	Assistant Professor
<i>Elementary Education</i>	
<i>B.S., Washington University; M.A., Glassboro State College</i>	
<b>CRAVER, RHYS (1963-1994)</b>	Associate Professor
<i>Chemistry &amp; Physics</i>	
<i>B.S., Millersville State College; M.S., University of Delaware; Ph.D., Walden University</i>	
<b>CREAMER, MARVIN C. (1948-1977)</b>	Professor
<i>Geography/Anthropology</i>	
<i>B.S., L.H.D., Glassboro State College; M.S., Univ. of PA; M.S., Univ. of Wisconsin</i>	
<b>CROMIE, DAVID (1973-2000)</b>	Associate Professor
<i>Public Relations/Advertising</i>	
<i>B.A., M.A., Western State College of Colorado; Ed.D., University of Colorado</i>	
<b>DARRAH, GLADYS L. (1967-1979)</b>	Assistant Professor
<i>Health and Physical Education</i>	
<i>B.S., M.S., University of Wisconsin</i>	
<b>DEAR, EDWARD C. (1969-2000)</b>	Associate Professor
<i>Health and Exercise Science</i>	
<i>B.S., Temple University; M.A., East Stroudsburg State College; D.A., Middle Tennessee State University</i>	
<b>DELANEY, LAWRENCE (1964-1988)</b>	Professor
<i>Physical Sciences</i>	
<i>B.S., Trenton State College; M.S., Ed.D., University of Pennsylvania</i>	
<b>DETTRICK, FRED (1964-1987)</b>	Associate Professor
<i>Foundations of Education</i>	
<i>B.A., M.S., Rutgers University</i>	
<b>DINSMORE, LEE (1971-2002)</b>	Professor
<i>Chemistry and Physics</i>	
<i>B.S., M.A., Glassboro State College</i>	
<b>DONAGHAY, ROBERT (1963-1992)</b>	Assistant Professor/Coordinator
<i>Academic Advising</i>	
<i>B.S., University of Minnesota; Ph.D., University of Texas</i>	
<b>DONAHUE, CHARLES T. (1960-2000)</b>	Professor
<i>English</i>	
<i>B.A., Texas A &amp; M University; M.A., University of Texas; Ph.D., Temple University</i>	
<b>DOSKOW, MINNA (1986-2002)</b>	Professor
<i>English/Dean</i>	
<i>B.S., M.S., City College of N.Y.; M.A., University of Connecticut; Ph.D., University of Maryland</i>	

THE EMERITI

<b>DOWNS, EDWARD (1961-1991).....</b>	<b>Assistant Professor</b>
Elementary/Early Childhood Education B.S., M.A., Glassboro State College	
<b>DUFF, ELIZABETH R. (1959-1984) .....</b>	<b>Professor</b>
Psychology B.S., Kent State Univ.; M.A., New York Univ.; Ed.D., University of Maryland	
<b>DUGAN, RUTH (1964-1981) .....</b>	<b>Professor</b>
Psychology B.A., Washington Square College; M.A., Ph.D., New York University	
<b>EDWARDS, ROBERT (1960-1991).....</b>	<b>Associate Professor</b>
Geography/Anthropology B.A., M.A., University of Michigan	
<b>ELLIOTT, GENE V. (1963-1998) .....</b>	<b>Professor</b>
Psychology B.S., M.A., Michigan State University; Ph.D., University of Maryland	
<b>EMERSON, ROBERT (1966-1992) .....</b>	<b>Asst Professor/Asst Director</b>
Professional Lab Exper. B.R.E., United Wesleyan College; M.A., Glassboro State College	
<b>ENGBRETSON, HERSCHEL (1969-1988).....</b>	<b>Assistant Professor</b>
Communications B.A., Taylor University; M.A., University of Pennsylvania	
<b>ENSLIN, WILLIAM L.(1974-2000) .....</b>	<b>Associate Professor</b>
Management/MIS B.E., University of Pennsylvania; Ed.D., Rutgers University	
<b>FALZETTA, JOHN (1969-1988) .....</b>	<b>Professor, Secondary Education</b>
B.A., LaSalle College; M.A., Niagara University; Ed.D., Temple University	
<b>FANSLAU, MARTHA C. (1971-1980) .....</b>	<b>Librarian/Instructor</b>
Library B.A., University of Pennsylvania; M.A., Glassboro State College	
<b>FOSTER, BRUCE (1970-2005) .....</b>	<b>Professor</b>
Reading B.A., Trenton State College; M.S.Ed., Bucknell Univ.; Ed.D., Florida State University	
<b>FOX, JOHN (1964-1990). ....</b>	<b>Assistant Professor</b>
Health and Physical Education B.A.P.E., M.S.P.E., West Virginia University	
<b>FRANKL, RAZELLE (1983-2000) .....</b>	<b>Professor</b>
Management/MIS B.A., Temple University; M.B.A., Drexel University; M.A., Ph.D., Bryn Mawr College	
<b>FRIEBIS, GEORGE (1969-1993) .....</b>	<b>Director</b>
Educational Media B.S., M.Ed., Temple University; M.A., Glassboro State College; Ed.D., Nova University	

<b>FRISONE, JOHN (1973-2002)</b>	Associate Professor
<i>Psychology</i>	
<i>B.A., Queens College; Ph.D., City University of New York</i>	
<b>GALLAGHER, DONALD (1973-1994)</b>	Professor
<i>Communications</i>	
<i>B.A., St. Francis College; M.A., Villanova University; Ed.D., Temple University</i>	
<b>GARDINER, DICKINSON (1967-1991)</b>	Professor
<i>Secondary Ed/Educational Foundations</i>	
<i>B.A., Western Maryland College; M.Ed., Ed.D., Temple University</i>	
<b>GARRABRANT, WILLIAM (1973-2003)</b>	Head of Circulation
<i>Interlibrary Loan &amp; Science Librarian</i>	
<i>B.A., Hamilton College; M.S.Ed., M.S.L.S., Syracuse University</i>	
<b>GARRAHAN, JOHN (1965-1982)</b>	Associate Professor
<i>Special Education</i>	
<i>B.A., City College of New York; M.S., Ed.D., University of Pennsylvania</i>	
<b>GATES, RODNEY E. (1968-2000)</b>	Assistant Professor
<i>Art</i>	
<i>B.S., Univ. of Maryland; M.A., Glassboro State College</i>	
<b>GAYNOR, WILLIAM (1965-1987)</b>	Assistant Professor/Librarian
<i>B.A., Georgetown Univ.; M.A., Fairfield Univ.; M.S., Villanova University</i>	
<b>GERSHENOWITZ, HARRY (1965-1998)</b>	Professor
<i>Biological Sciences</i>	
<i>B.S., St. John's University; B.A., M.S., Long Island University; M.A., Columbia University; Ed.D., Columbia University</i>	
<b>GILLESPIE, JOHN (1972-1992)</b>	Associate Professor
<i>Communications</i>	
<i>B.S., M.A., Glassboro State College</i>	
<b>GLASSBERG, ROSE (1964-1991)</b>	Professor
<i>Secondary Ed/Educational Foundations</i>	
<i>B.S., West Chester State College; M.A., Middlebury College; Ph.D., Temple University</i>	
<b>GOLDBERG, LEON (1968-1988)</b>	Associate Professor
<i>Physical Science</i>	
<i>B.S., City College of New York; M.S., New York University</i>	
<b>GOODFELLOW, FRANK (1965-1999)</b>	Associate Professor
<i>Secondary Education</i>	
<i>B.A., College of Wooster; M.S.L.S., Drexel Institute of Technology</i>	
<b>GRACE, JAMES H. (1969-2000)</b>	Professor
<i>Philosophy/Religion</i>	
<i>B.A., M.Th., Drew University; M.A., Ph.D., Temple University</i>	

THE EMERITI

<b>GRAZIAN, FRANK (1968-1991)</b>	Associate Professor
<i>Communications</i>	
<i>B.A., Rutgers University; M.S., Columbia University</i>	
<b>GREEN, CHARLES H. (1962-1993)</b>	Professor
<i>Life Sciences</i>	
<i>B.S., Penn State Univ.; M.S., University of Delaware; Ph.D., Purdue University</i>	
<b>GUERARD, MICHAEL P. (1971-1995)</b>	Associate Professor
<i>Technology</i>	
<i>B.S., M.Ed., Ph.D., Texas A &amp; M University</i>	
<b>GUNDAKER, ISABELLE (1983-2003)</b>	Instructor
<i>Composition &amp; Rhetoric</i>	
<i>B.A., Chestnut Hill College; M.A., Rutgers</i>	
<b>GURST, LAWRENCE (1966-1993)</b>	Assistant Professor
<i>Elementary Education</i>	
<i>M.A.A., M.Ed., Temple University</i>	
<b>HABA, JAMES (1972-2003)</b>	Associate Professor
<i>English</i>	
<i>B.A., Reed College; Ph.D., Cornell University</i>	
<b>HAYNES, ROBERT (1960-1991)</b>	Professor
<i>Art</i>	
<i>B.F.A., Colorado State College; M.A., Ed.D., Columbia University</i>	
<b>HENDERYCKSEN, M. HUGUETTE (1969-1991)</b>	Professor
<i>Foreign Languages &amp; Literatures</i>	
<i>Licence, Aix en Provence Univ.; B.S., Shippensburg State College; M.Ed., Temple Univ.; M.A., University of Pennsylvania; Ph.D., Rutgers University</i>	
<b>HEWSSEN, ROBERT H. (1967-1999)</b>	Professor
<i>History</i>	
<i>B.A., University of Maryland; M.S., Catholic University; Ph.D., Georgetown University</i>	
<b>HILTS, RICHARD (1962-1981)</b>	Professor
<i>Music</i>	
<i>B.M., Eastman School of Music; M.M., University of Oklahoma</i>	
<b>HITCHNER, BENJAMIN G. (1964-1998)</b>	Assistant Professor
<i>Economics</i>	
<i>B.S., Temple University; M.S., University of Pennsylvania</i>	
<b>HUMBERT, JOHN J. (1969-1995)</b>	Professor
<i>Technology</i>	
<i>B.S., University of Maryland; M.Ed., Pennsylvania State University; Ed.D. Texas A&amp;M University</i>	
<b>HUSAIN, SYED (1960-1994)</b>	Professor
<i>Biological Sciences</i>	
<i>I.Sc., City Science College, Hyderabad; B.Sc., College of Agriculture, Osmania University, Hyderabad, India; M.S., Oklahoma State University; Ph.D., Cornell University</i>	

<b>ILLAS, ARTURO (1967-1987)</b>	Associate Professor
<i>Foreign Languages and Literatures</i>	
<i>B.A., M.S., Indiana State University; B.A., B.S., City College of Santiago; L.L.D., Univ. of Jose Marti</i>	
<b>JAEGER, PETER (1966-1981)</b>	Associate Professor
<i>Communications</i>	
<i>B.A., Mexico City College; M.Ed., University of Houston</i>	
<b>JENSEN, IVAR I. (1959-1981)</b>	Professor
<i>Foundations of Education</i>	
<i>B.Ed., Univ. of Connecticut; M.A., Middlebury College; Ed.D., Columbia University</i>	
<b>JOHNSON, RICHARD J. (1971-2000)</b>	Associate Professor
<i>Political Science</i>	
<i>B.A., M.A., Cert. of Russian Institute; Ph.D., Columbia University</i>	
<b>JOHNSON, THEODORE B. (1990-1999)</b>	Associate Professor
<i>Educational Leadership</i>	
<i>B.S., M.A., Temple University; Ed.D., Rutgers University</i>	
<b>JONES, JOHN (1968-1990)</b>	Assistant Professor
<i>Foreign Languages and Literatures</i>	
<i>B.A., M.A., University of Alabama; Diplome, Institut de Touraine, Tours, France</i>	
<b>KAPEL, DAVID (1988-2002)</b>	Professor
<i>Secondary Ed/Foundations</i>	
<i>B.S., M.Ed., Ed.D., Temple University</i>	
<b>KARDAS, WILLIAM (1968-2000)</b>	Head Reference Librarian
<i>B.S., M.L.S., Villanova University</i>	
<b>KELLER, HORACE (1960-1986)</b>	Professor
<i>Psychology</i>	
<i>B.S., West Chester University; M.Ed., Ed.D., Temple University</i>	
<b>KELLY, MICHAEL F. (1961-1998)</b>	Professor
<i>Theatre and Dance</i>	
<i>B.A., Elmhurst College; M.A., Ph.D., State University of Iowa</i>	
<b>KERSHNER, E. THEODORE (1968-1998)</b>	Assistant Professor
<i>Health and Exercise Science</i>	
<i>B.S., Ursinus College, M.Ed., Temple University</i>	
<b>KESSLER, SIDNEY (1958-1991)</b>	Professor
<i>History</i>	
<i>B.A., Montclair State College; M.A., Columbia University; M.L.S., Pratt Institute</i>	
<b>KIRNER, CLARA (1971-1994)</b>	Librarian
<i>B.A., Rutgers University; M.A., Drexel University</i>	
<b>KLANDERMAN, JOHN (1986-2005)</b>	Professor
<i>Special Education</i>	
<i>B.A., Calvin College; M.A., Ph.D., Michigan State University</i>	

THE EMERITI

<b>KUSHNER, WILLIAM (1970-1999)</b> .....	<b>Professor</b>
<i>Communication Studies</i>	
<i>B.A., Montclair State College; M.A., Temple University; Ph.D., Indiana University</i>	
<b>LANGWORTHY, STANTON (1956-1991)</b> .....	<b>Professor</b>
<i>Secondary Ed/Foundations of Education</i>	
<i>B.A., M.Ed., Alfred University of NY; M.S., M.A., Ph.D., University of Wisconsin</i>	
<b>LEE, ELAINE (1967-1994)</b> .....	<b>Associate Professor</b>
<i>Elementary/Early Childhood Education</i>	
<i>B.S., M.A., Trenton State College; Ed.D., Temple University</i>	
<b>LESHAY, STEVEN V. (1978-1999)</b> .....	<b>Associate Professor</b>
<i>Marketing</i>	
<i>B.A., Lenoir Rhyne College; M.A., Glassboro State College; Ph.D., Temple University</i>	
<b>LIBRO, ANTOINETTE (1968-2002)</b> .....	<b>Dean/Professor</b>
<i>Communication</i>	
<i>B.A., Glassboro State College; Ph.D., New York University</i>	
<b>LINT, JERRY N. (1964-1998)</b> .....	<b>Assistant Professor</b>
<i>Geography/Anthropology</i>	
<i>B.S., Clarion State College; M.Ed., Pennsylvania State University</i>	
<b>LLOYD, DAVID D. (1959-2000)</b> .....	<b>Associate Professor</b>
<i>Journalism and Creative Writing</i>	
<i>B.A., Montclair State College; M.A., University of Michigan</i>	
<b>LOIGMAN, BARRY M. (1970-1999)</b> .....	<b>Associate Professor</b>
<i>Psychology</i>	
<i>B.A., M.A., Temple University; Ph.D., Rutgers University</i>	
<b>LONGACRE, DAVID (1961-1989)</b> .....	<b>Education and Assistant Registrar</b>
<i>B.A., Gettysburg College; M.S., University of Pennsylvania</i>	
<b>LYNCH, ROBERT D. (1973-1999)</b> .....	<b>Professor</b>
<i>Management/MIS</i>	
<i>B.S., M.S., Ph.D., Carnegie-Mellon University; SPHR</i>	
<b>MARTIN, DORIS (1976-1987)</b> .....	<b>Assistant Professor</b>
<i>Home Economics</i>	
<i>B.S., Penn State University; M.S., Cornell University; Ed.D., Temple University</i>	
<b>MARTIN, MARILYN (1995-2004)</b> .....	<b>Dean</b>
<i>Library Services</i>	
<i>B.A., M.L.S., Univ. of Washington; M.A., Univ. of Arkansas; Ph.D., Texas Woman's Univ.</i>	
<b>MASAT, FRANCIS E. (1972-1998)</b> .....	<b>Professor</b>
<i>Mathematics</i>	
<i>B.A., Blackburn College; M.S., Kansas State University; Ph.D., University of Nebraska</i>	
<b>MASSUDA, BARRY (1967-1992)</b> .....	<b>Assistant Professor</b>
<i>Foreign Languages and Literatures</i>	
<i>B.A., Cairo University; M.A., Seton Hall University</i>	

<b>McCONNELL, HELEN (1965-1995)</b>	.....	<b>Professor</b>
<i>Home Economics</i>		
<i>B.S., State Univ. College, Oneonta, NY; M.A., Columbia Univ.; Ph.D., Michigan State University</i>		
<b>MCCORMICK, RALPH (1973-1987)</b>	.....	<b>Assistant Professor</b>
<i>Business Administration</i>		
<i>B.S., University of Detroit; C.P.A.</i>		
<b>McCRANN, VIRGINIA E. (1968-1985)</b>	.....	<b>Assistant Professor</b>
<i>Home Economics</i>		
<i>B.A., M.Ed., Rutgers University</i>		
<b>McKENZIE, JAMES J. (1954-1980)</b>	.....	<b>Professor</b>
<i>English</i>		
<i>B.A., Canisius College; M.A., Ph.D., Harvard University</i>		
<b>MCLEAN, DESMOND (1966-2002)</b>	.....	<b>Associate Professor</b>
<i>Art</i>		
<i>B.A., Newark State College; M.A., Hunter College</i>		
<b>MERCIER, J. DENIS (1967-2002)</b>	.....	<b>Professor</b>
<i>Communication</i>		
<i>B.A., Marian College; M.A., Niagara University; Ph.D., University of Pennsylvania</i>		
<b>METCALF, OWEN (1972-2000)</b>	.....	<b>Associate Professor</b>
<i>Music</i>		
<i>B.M.E., M.M.E., University of Colorado; D.M., Indiana University</i>		
<b>MEYERS, DOROTHY (1967-1985)</b>	.....	<b>Assistant Professor/Librarian</b>
<i>B.A., State University of Iowa; M.L.S., Rutgers University</i>		
<b>MICAL, AGNES (1968-1996)</b>	.....	<b>Assistant Professor</b>
<i>Health &amp; Exercise Science</i>		
<i>B.S., M.S., West Chester University</i>		
<b>MICHAELSON, JAMES (1967-1991)</b>	.....	<b>Assistant Professor</b>
<i>Secondary Ed/Ed. Foundations</i>		
<i>B.S., M.A., Temple University</i>		
<b>MICKLUS, SAMUEL C. (1968-1991)</b>	.....	<b>Professor</b>
<i>Technology</i>		
<i>B.S., Philadelphia College of Art; M.A., Trenton State College; Ed.D., New York Univ.</i>		
<b>MILLER, CLARENCE (1956-1992)</b>	.....	<b>Professor</b>
<i>Music</i>		
<i>B.M.E., Mount Union College; M.M., Marshal University</i>		
<b>MITCHELL, RICHARD (1964-1991)</b>	.....	<b>Professor</b>
<i>English</i>		
<i>B.A., University of the South; M.A., Ph.D., Syracuse University</i>		
<b>MITCHELL, ROBERT D. (1965-1997)</b>	.....	<b>Associate Professor</b>
<i>Mathematics</i>		
<i>B.S., M.A., University of Texas</i>		

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<b>MONROE, GERALD (1968-1986)</b>	Associate Professor
Art	
B.S., M.A., Ed.D., New York University	
<b>MOORE, ELIZABETH (1972-2002)</b>	Professor
Biological Sciences	
B.Sc., Rollins College; M.S., Ph.D., Cornell University	
<b>MOORE, OSCAR (1971-2003)</b>	Assistant Professor
Health & Exercise Science	
B.S., M.S., Southern Illinois University	
<b>MORFORD, IDA B. (1956-1981)</b>	Professor
Psychology	
B.S., Geneseo State College; M.A., Ph.D., Ohio State University	
<b>MORRIS, WILLIAM C. (1968-1999)</b>	Professor
Theatre and Dance	
B.A., DePaul University; M.A., Northwestern University; Ph.D., University of Illinois	
<b>MOYER, MEL (1967-2000)</b>	Associate Professor
Psychology	
B.A., Glassboro State College; M.Ed., Temple University; Ed.D., Rutgers University	
<b>MUMFORD, DONALD (1961-1985)</b>	Assistant Professor/Research Assistant
B.A., Geneva College; M.A., University of Pittsburgh	
<b>MYKSVOLL, BIRGER (1962-1981)</b>	Professor
Psychology	
B.A., Notodden Teachers College, Norway; M.A., Oslo Univ., Norway; Ph.D., University of Maryland	
<b>NEFF, GEORGE (1962-2000)</b>	Professor
Art	
B.S., Kutztown University; M.A., Columbia University; Ed.D., Pennsylvania State University	
<b>NICHOLS, ELWOOD (1960-1988)</b>	Associate Professor
Life Sciences	
B.S., North Carolina Central University; M.S., City College of New York	
<b>NICHOLS, LOLA (1960-1986)</b>	Assistant Professor
Elementary Education	
B.S., Trenton State College; M.A., Columbia University; M.A., Glassboro State College	
<b>NIENSTEDT, CARL W. (1962-1982)</b>	Professor
Special Education	
B.A., M.A., Bucknell University; Ph.D., University of Connecticut	
<b>NORTON, DONALD (1961-1983)</b>	Professor
Music	
B.S., Western Michigan University; M.A., University of Maryland; Ed.D., Columbia Univ.	
<b>O'DAY, SHIRLEY (1963-1990)</b>	Professor
Health and Physical Education	
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**ONNI, MURIEL (1967-1991)** ..... Professor

*Foreign Languages and Literatures*

*B.A., Univ. of Toronto; M.A., McGill University; M.A., Ph.D., Rutgers University*

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*Communications*

*B.A., Immaculata College; M.A., Villanova University*

**PERKINS, THELMA (1970-1986)** ..... Assistant Professor

*Secondary Education*

*B.S.Ed., M.Ed., Temple University; M.A., University of Pennsylvania*

**PERRY, WILHELMINA E. (1968-1997)** ..... Professor

*Sociology*

*B.A., Tilotson College; M.A., Howard University; Ph.D., University of Texas*

**PICKETT, ETHEL (1968-1987)** ..... Assistant Professor

*Home Economics*

*B.S., University of Delaware; M.Ed., University of Maryland*

**PIKE, FRANK (1964-1987)** ..... Assistant Professor

*English*

*B.A., Suffolk University; M.A., Boston College; M.Ed., State College at Boston*

**PITTARD, NORMA (1968-1987)** ..... Assistant Professor

*Art*

*B.A., Adelphi University; M.A., Columbia University; Ph.D., University of Maryland*

**PORTERFIELD, RICHARD (1961-1998)** ..... Associate Professor

*History*

*B.A., Johns Hopkins University; M.A., University of Pennsylvania; Ph.D., Temple University*

**POTTS, RINEHART (1964-1993)** ..... Assistant Professor

*Secondary Ed/Educational Foundations*

*B.A., Temple University; M.L.S., Rutgers University*

**PRIMACK, ROSE Z. (1964-1976)** ..... Associate Professor

*p*

*B.S., Seton Hall University; M.Ed., University of Maryland*

**PUJALS, ENRIQUE J. (1969-2000)** ..... Professor

*Foreign Languages and Literatures*

*B.A., M.A., Indiana State University; Ph.D., Rutgers University*

**PUJALS, JOSEFINA (1971-2000)** ..... Associate Professor

*Foreign Languages and Literatures*

*B.A., M.A., Indiana State University; Ph.D., Rutgers University*

**REEVES, EDWIN C. (1968-1996)** ..... Assistant Professor

*Reading*

*B.A., M.A., Glassboro State College*

THE EMERITI

<b>REGENSBURG, GEORGE E. (1959-1984)</b>	Professor
<i>Special Education</i>	
<i>B.S., Rider College; M.A., Montclair State College; Ed.D., Rutgers University</i>	
<b>REINFELD, GEORGE (1956-2002)</b>	Professor
<i>Communication</i>	
<i>B.A., M.A., Montclair State College</i>	
<b>RESNIK, BENJAMIN (1965-1991)</b>	Assistant Professor
<i>Communications</i>	
<i>B.A., M.A., Glassboro State College</i>	
<b>RICHARDSON, HERBERT A. (1966-1998)</b>	Assistant Professor
<i>History</i>	
<i>B.M., M.M., Yale University; M.A., Ph.D., University of Pennsylvania.</i>	
<b>RILLING, MARION (1971-2001)</b>	Professor
<i>Graduate School</i>	
<i>B.S., Trenton State College; M.S., Ed.D., University of Pennsylvania</i>	
<b>ROBINETTE, JOSEPH (1981-2005)</b>	Professor
<i>Theatre/Dance</i>	
<i>B.A., Carson-Newman College; M.A., Ph.D., Southern Illinois University</i>	
<b>ROCH, JOHN (1959-1984)</b>	Professor
<i>English</i>	
<i>B.A., University of Massachusetts; M.A., Ph.D., Columbia University</i>	
<b>ROMANIO, STEVEN (1963-1993)</b>	Professor
<i>Music</i>	
<i>B.M., M.M., Eastman School of Music</i>	
<b>ROOME, WARREN G. (1958-1975)</b>	Professor
<i>Mathematics</i>	
<i>B.S., Mt. Allison University; M.A., Ed.D., Columbia University</i>	
<b>ROWAND, EDITH T. (1966-2000)</b>	Assistant Professor
<i>Health and Exercise Science</i>	
<i>B.S., The King's College; M.S., West Chester State College</i>	
<b>SAKIEY, ELIZABETH (1974-2000)</b>	Professor
<i>Reading</i>	
<i>B.S., Eastern Michigan University; M.Ed., Ed.D., Rutgers University</i>	
<b>SALATI, RUDOLPH (1959-1983)</b>	Assistant Professor/Registrar
<i>B.S., Glassboro State College; M.Ed., Temple University</i>	
<b>SALERNO, ANTHONY (1976-1997)</b>	Assistant Professor
<i>Law/Justice</i>	
<i>B.A., University of Delaware; M.A., Rutgers University</i>	
<b>SCHREIBER, ELLIOTT (1967-1995)</b>	Associate Professor
<i>Psychology</i>	
<i>B.A., Upsala College; M.A., Bradley University; Ed.D., West Virginia University</i>	

<b>SCHWARZ, CHARLES (1967-1999)</b>	.....	<b>Assistant Professor</b>
<i>Mathematics</i>		
<i>B.A., St. John's University; M.S., Fordham University; M.S., Adelphi University; Ed.D., Rutgers University</i>		
<b>SERFUSTINI, LEONARD (1971-1986)</b>	.....	<b>Professor</b>
<i>Health and Physical Education</i>		
<i>B.Ed., M.Ed., University of Buffalo; Ed.D., State University of New York</i>		
<b>SHAW, ALBERT (1955-1989)</b>	.....	<b>Professor</b>
<i>Philosophy/Religion</i>		
<i>B.A., Temple University; M.A., New York University</i>		
<b>SHAWVER, MURL C. (1958-1974)</b>	.....	<b>Professor</b>
<i>Life Sciences</i>		
<i>B.S., Central Missouri State College; M.Ed., Univ. of Missouri; Ed.D., Columbia Univ.</i>		
<b>SHRADER, EDITH (1959-1968)</b>	.....	<b>Demonstration Teacher</b>
<i>Early Childhood Education</i>		
<i>B.S., M.S., Glassboro State College</i>		
<b>SIMONS, ROBERT (1965-1987)</b>	.....	<b>Assoc. Professor/Exec. Director</b>
<i>Curriculum Develop. Council</i>		
<i>B.S., West Chester State College; M.A., Ohio University</i>		
<b>SIMPSON, EUGENE (1975-2000)</b>	.....	<b>Professor</b>
<i>Music</i>		
<i>B.M., Howard University; B.M., M.M., Yale University; Ed.D., Columbia University</i>		
<b>SIZEMORE, WARNER (1966-1987)</b>	.....	<b>Assistant Professor</b>
<i>Philosophy/Religion</i>		
<i>B.A., East Tennessee State; M.A., Bob Jones University; M.A., Temple University; B.D., Lincoln University</i>		
<i>Theological Seminary</i>		
<b>SMITH, RICHARD R. (1964-1999)</b>	.....	<b>Professor</b>
<i>Educational Leadership</i>		
<i>B.A., M.A., Glassboro State College; Ed.D., Temple University</i>		
<b>SMITH, STEWARD (1968-1983)</b>	.....	<b>Assistant Professor</b>
<i>Elementary Education</i>		
<i>B.A., Rutgers University; M.Ed., Temple University</i>		
<b>SOOY, JOHN M. (1961-1998)</b>	.....	<b>Professor</b>
<i>Mathematics</i>		
<i>B.S., Glassboro State College; M.S., University of Pennsylvania; Ed.D., Temple University</i>		
<b>SPEAR, MIRIAM (1967-1983)</b>	.....	<b>Assistant Professor</b>
<i>Secondary Education</i>		
<i>B.A., M.S., Glassboro State College</i>		
<b>STANLEY, DANIEL (1966-1991)</b>	.....	<b>Professor</b>
<i>Health and Physical Education</i>		
<i>B.Ed., Univ. of Buffalo; M.Ed., State Univ. of New York; Ed.D., Temple University</i>		

THE EMERITI

<b>STEVENS, KATHLEEN (1972-1998)</b>	<b>Associate Professor</b>
<i>Communication</i>	
<i>B.A., Georgian Court College; M.A., Glassboro State College (Rowan)</i>	
<b>STONE, DON C. (1968-2000)</b>	<b>Associate Professor</b>
<i>Computer Science</i>	
<i>E. Eng. Phys., Cornell University; M.S.E., Ph.D., University of Pennsylvania</i>	
<b>SULLIVAN, JANE E. (1972-1999)</b>	<b>Professor</b>
<i>Reading</i>	
<i>B.S., Seton Hall University; M.S., Ed.D., State University of New York, Albany</i>	
<b>TANEY, MARY C. (1967-1991)</b>	<b>Professor</b>
<i>History</i>	
<i>B.A., College of Saint Teresa; M.A., Ph.D., Catholic University; Litt.D., Universita Cattolica del Sacro Cuore, Milan, Italy</i>	
<b>TANNENBAUM, MARGARET D. (1971-2000)</b>	<b>Professor</b>
<i>Secondary Education</i>	
<i>B.A., Bryan College; M.Ed., Ed.D., Temple University</i>	
<b>TANNENBAUM, THEODORE (1973-1998)</b>	<b>Professor</b>
<i>Sociology</i>	
<i>B.A., M.A., Brooklyn College; Ph.D., Purdue University</i>	
<b>TAYLOR, ALBERT (1964-1987)</b>	<b>Professor</b>
<i>Foundations of Education</i>	
<i>B.S., Trenton State College; M.Ed., Ed.D., Rutgers University</i>	
<b>TAYLOR, ROBERT (1964-1991)</b>	<b>Professor</b>
<i>Music</i>	
<i>B.S., Juilliard; M.A., Ed.D., Teachers College, Columbia University</i>	
<b>THYHSEN, JOHN (1969-2000)</b>	<b>Professor</b>
<i>Music</i>	
<i>B.M., M.M., Eastman School of Music</i>	
<b>TISHLER, JOSEPH (1964-2000)</b>	<b>Professor</b>
<i>Art</i>	
<i>Cresson Scholar, Pennsylvania Academy of Fine Arts; B.F.A., M.F.A., University of Pennsylvania; D.A., Carnegie-Mellon University</i>	
<b>TOMEI, MARIO (1964-1995)</b>	<b>Professor</b>
<i>Educational Administration</i>	
<i>B.A., Montclair State College; M.S., University of Pennsylvania; Ed.D., Temple University</i>	
<b>TRACEY, JAMES H. (1994-2000)</b>	<b>Dean/Professor</b>
<i>College of Engineering</i>	
<i>B.S.E.E., M.S., Ph.D., Iowa State University</i>	
<b>TRAVIS, DAVID (1962-1991)</b>	<b>Associate Professor</b>
<i>Mathematics</i>	
<i>B.S., New Mexico State University; M.S., Oklahoma State University; Ed.D., University of Northern Colorado</i>	

<b>TSUJI, THOMAS (1969-1995)</b>	.....	<b>Professor</b>
<i>Technology</i> <i>B.S., M.S., Stoudt State College; Ph.D., Michigan State University</i>		
<b>VERBEKE, MAURICE ( 967-1987)</b>	.....	<b>Professor</b>
<i>Educational Administration</i> <i>B.S., M.Ed., Ed.D., Pennsylvania State University</i>		
<b>VIVARELLI, THOMAS (1967-2004)</b>	.....	<b>Assistant Professor</b>
<i>Special Education</i> <i>B.A., Trenton State College; M.A., Glassboro State College</i>		
<b>VIVIAN V. EUGENE (1955-1979)</b>	.....	<b>Professor</b>
<i>Life Sciences</i> <i>B.A., Montclair State College; M.A., Columbia University; Ph.D., New York University</i>		
<b>VOGAL, HAL (1984-2005)</b>	.....	<b>Professor</b>
<i>Public Relations/Advertising</i> <i>B.A., Temple University; M.A., William Paterson College; Ph.D., Antioch University; APR</i>		
<b>WACKAR, RICHARD (1956-1988)</b>	.....	<b>Professor</b>
<i>Health and Physical Education</i> <i>B.S., M.A., Rutgers University</i>		
<b>WARD, HUGH J. (1959-1976)</b>	.....	<b>Associate Professor</b>
<i>Foundations of Education</i> <i>B.S., M.A., Glassboro State College</i>		
<b>WARING, JOSEPH C. (1966-1991)</b>	.....	<b>Associate Professor</b>
<i>Physical Sciences</i> <i>B.A., State Univ. of New York at Binghamton; M.S., State Univ. of New York at Oneonta; Ph.D., University of South Carolina</i>		
<b>WASSERMAN, BURTON (1960-2003)</b>	.....	<b>Professor</b>
<i>Art</i> <i>B.A., Brooklyn College; M.A., Ed.D., Columbia University</i>		
<b>WEAR, BARBARA (1973-1999)</b>	.....	<b>Assistant Professor</b>
<i>Elementary/Early Childhood Education</i> <i>B.A., Trenton State College; M.S.W., Rutgers University</i>		
<b>WELSH, CHARLES (1973-1992)</b>	.....	<b>Professor</b>
<i>Marketing</i> <i>B.S., Villanova University; M.B.A., Ph.D., University of Pennsylvania</i>		
<b>WHITCRAFT, JOHN (1963-1987)</b>	.....	<b>Professor</b>
<i>Philosophy/Religion</i> <i>B.A., Asbury College; M.A., Temple Univ.; B.D., Asbury Seminary; S.T.M., Boston Univ.</i>		
<b>WHITE, EDWARD H., JR. (1973-2000)</b>	.....	<b>Professor</b>
<i>Educational Leadership</i> <i>B.A., Keene State College; M.S., Indiana State University; Ph.D., University of Maryland</i>		

THE EMERITI

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<i>Music</i>	
<i>B.M., M.M., Ithaca College</i>	
<b>WILLIAMS, THELMA (1969-1987)</b>	Associate Professor
<i>Music</i>	
<i>B.S., Trenton State College; M.A., New York University</i>	
<b>WINAND, LOIS (1971-1991)</b>	Assistant Professor
<i>Home Economics</i>	
<i>B.S., M.S., Drexel University; Ed.D., Pennsylvania State University</i>	
<b>WOLFE, EDWARD (1959-1994)</b>	Professor
<i>English</i>	
<i>B.A., M.A., Ph.D., University of Pennsylvania</i>	
<b>WOOD, A. TAGE (1968-1987)</b>	Associate Professor
<i>Speech/Theatre/Dance</i>	
<i>B.S., East Stroudsburg State College; M.Ed., University of South Dakota</i>	
<b>WOODS, WELLINGTON (1967-1998)</b>	Associate Professor
<i>Chemistry and Physics</i>	
<i>B.S., Glassboro State College; M.Ed., Rutgers University; Ph.D., Walden University</i>	
<b>WRIGGINS, THOMAS (1967-1992)</b>	Assistant Professor/Director of Support Services
<i>Education</i>	
<i>B.A., Glassboro State College; M.Ed., Temple University</i>	
<b>YANNELLA, DONALD (1964-1991)</b>	Professor
<i>English</i>	
<i>B.S., M.A., Ph.D., Fordham University</i>	
<b>YOUNG, FLORA (1968-1995)</b>	Professor
<i>Sociology</i>	
<i>B.A., M.A., Howard University; Ed.D., University of Pennsylvania</i>	
<b>YOUNG, WALTER BYRON (1972-1997)</b>	Professor
<i>Art</i>	
<i>B.A., M.A., Glassboro State College; Ed.D., Pennsylvania State University</i>	
<b>ZAHN, RICHARD (1960-1987)</b>	Professor
<i>Foundations of Education</i>	
<i>B.S., West Chester State College; M.Ed., Ed.D., Temple University</i>	
<b>ZALUSKY, DONALD (1966-1991)</b>	Associate Professor
<i>Physical Sciences</i>	
<i>B.S., M.A., University of Missouri; Ph.D., University of Delaware</i>	
<b>ZIMMERMAN, DONALD (1961-1992)</b>	Professor
<i>Elementary/Early Childhood Education</i>	
<i>B.S., M.A., State University of New York, Buffalo; Ed.D., Temple University</i>	
<b>ZINK, THEODORE (1966-1987)</b>	Professor
<i>Law/Justice</i>	
<i>B.S., M.S., University of Delaware; Ed.D., Temple University</i>	

# CAMPUS BUILDINGS

## **Alumni Center**

Named in honor of a former administrator who served the university for 48 years, the building is located on Whitney Boulevard, near Hollybush. The Alumni Center is the headquarters for the Rowan University Alumni Association and the office of corporate and foundation relations.

## **Bole Hall**

Bole Hall is the administrative center of the University. The offices of the president, provost, executive vice president for university advancement, associate provost for academic affairs, associate provost for faculty affairs, university relations, and some of the business offices are located in this building.

## **Bole Hall Annex**

Opened in the spring of 1970, the Annex houses the offices of the executive director for budget and planning, government grants and sponsored projects, university marketing, and institutional research and planning.

## **Bosshart Hall**

This building, named after a former state commissioner of education, houses the dean of the College of Liberal Arts & Sciences. It contains a large lecture hall, classrooms, faculty offices, lounges.

## **Bozorth Hall**

Named for a former registrar, Bozorth Hall was originally opened in 1954 as the campus elementary school. Renovated in 1985 and refurbished with an in 1994, Bozorth houses the College of Communication offices, an ITV distance learning classroom, television studios, radio training studios, film editing facilities, a computer equipped journalism newsroom, an advertising/PR client suite, layout room and a computer-equipped writing laboratory.

## **Bunce Hall**

The first building on campus, Bunce Hall was built in 1923 and is named for a former president of the University. It houses the William G. Rohrer College of Business including the business microcomputer labs, as well as the departments of economics, English, foreign languages and literatures, philosophy and religion, and theatre and dance. This building also features classroom space and Tohill Auditorium.

## **Campbell Library**

Opened in 1995, Campbell Library features 118,000 square feet of research, study, archive and office space. With its six-story tower, the highest structure on the campus, serves as the intellectual center of Rowan University. With generous seating and special facilities for group study and conferences, the new library readily accommodates the needs of the Rowan community for research, quiet study, and a place for the exchange of ideas. The library provides connectivity to the campus network, enabling access to the many databases and online resources. In December of 2000, the Library was named the Keith and Shirley Campbell Library, in recognition of the Campbells' generous gift of an endowment for the Library.

## **Carriage House**

Built in 1849 to service the Hollybush mansion, this building now houses university publications and the ROTC program.

## **Cassady Maintenance Building**

Opened in the summer of 1971, the Cassady Maintenance Building, named for a former engineer in charge of maintenance, is the main office complex for central receiving, the carpentry shop, electric shop, plumbing shop and other maintenance offices.

## **Education Hall**

Education Hall, opened January 2006, is home to the College of Education and its 120 faculty and staff and nearly 2,500 education majors. The three-story, 135,000 square-foot building features academic "smart" classrooms, distance learning facilities an early childhood development center in addition to an assortment of labs and outreach centers.

## **Esby Gym**

Esby Gym 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.

## **Girard House**

Girard House is the home of the parent co-op children's day care center.

## **Hawthorn Hall**

Formerly a student residence facility, Hawthorn Hall was renovated in 1986 and again in 2001 to house offices and classrooms for the College of Communication.

## **Hollybush Mansion**

Built in 1849, Hollybush served as the university president's private residence until 1998. The building was the site of the summit meeting between President Lyndon B. Johnson and Soviet Premier Alexei B. Kosygin in 1967. In 2000, a renovation project was begun to restore Hollybush as a museum and meeting center.

## **Heating Plant**

The building is constructed almost entirely of glass and is named for the former superintendent of maintenance. It houses the centralized heating equipment.

## **John Green Team House**

Opened in the summer of 1971, the Team House contains locker room facilities, intercollegiate athletics, coaching and staff offices and a universal gym room.

## **Linden Hall**

Formerly a student residence facility, Linden Hall houses the office of human resources, the student health center, the facilities management office, the safety office and the offices of the vice president for administration and finance.

## **Memorial Hall**

This building opened in 1956 and serves as the center for information resources for the campus. The associate provost's office, as well as instructional technology, network systems, digital printing services and user services are housed in the older section of the building. The campus help desk is also located here. The newer part, which was once used as a dining hall, has been converted into dance studios, the computer/M.I.S. center and The Graduate School.

## **Rowan Hall**

Opened in January 1998, Henry M. Rowan Hall is the home of the College of Engineering. The 95,000 sq. ft. building features three floors of offices, classrooms, labs and a 115-seat auditorium. It houses chemical, civil and environmental, electrical and computer, and mechanical engineering.

## **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, seminar rooms and two large lecture halls, each with a seating capacity of 150. The following offices and academic departments are located here: psychology, geography/anthropology, history, mathematics, computer sciences, sociology and political science.

## **Savitz Hall**

Originally the University library, this building has been completely renovated to house all of the student service functions, including the offices of the vice president for student affairs, the dean of students, career and academic planning, developmental education, tutoring, basic skills/testing, admissions, counseling, EOF/MAP, registrar, financial aid, revenue and collections, residence life, multicultural/international affairs, specialized services, the center for service learning and volunteerism, the honors program and women's studies.

## **Science Hall**

In fall 2003, Rowan opened the doors to its six-level, 149,000-square foot science center. The largest building for classroom activity, Science Hall features 47 teaching and research laboratories, four general purpose classrooms, two large seminar rooms and a rooftop greenhouse. The centerpiece of the facility is the 102-seat Edelman planetarium. Science Hall is home to biological sciences, chemistry and biochemistry, and physics and astronomy departments.

## **Seymour Winans Hall**

Winans Hall is named for a former faculty member and home to the University bookstore. The bookstore offers a variety of items including textbooks, school and art supplies, and Rowan imprinted gifts and clothing. It also provides many professional services such as resume printing, film developing, and graduation cap and gown rentals.

## **Student Center**

The Chamberlain 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 offices, including Student Center Administration, Office of Multicultural Affairs, Student Activities, Service Learning and Volunteerism, catering/dining services and student offices such as Student Government Association, Student University Programmers and Student Publications. The following facilities and/or services are located in the three-level center; the information desk, the ID room, the mail room , an ATM machine, change machine, the game room, a laundry facility, the Eynon Ballroom, meeting and conference rooms and eating areas, including the Marketplace, a food court, Jazzman's Café and the Owl's Nest.

## **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 8-lane swimming pool, a 3-lane indoor running track, a 3-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.

## **Sangree Greenhouse**

Built in 1923, the greenhouse is one of the oldest structures on campus. A preservation and renovation project was completed on this facility in 1998.

## **Westby Arts Center**

Completed in 1967, this building houses the art department. The building, named in honor of the former director of county and state college construction, contains comprehensive laboratories, classrooms, a lecture hall for 110 students, faculty offices, a large exhibit gallery, the graphics communication technology center and a darkroom.

## **Wilson Hall**

This facility is named for a former Rowan University faculty member. Opened in the spring of 1972, the building contains two large rehearsal rooms, a 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 are also located in the building.

## **Residence 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.

### **Edgewood Park Apartments**

This four-building complex opened in the fall of 1974. Each building houses 24 apartments. Four students live in each apartment which contains two bedrooms, 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.

### **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.

### **Laurel and Oak Halls**

Originally built as residence halls, these buildings were used as administrative offices for a number of years. In 1998, they were renovated and now serve as residence halls again housing 45 students in each hall.

### **Mansion Park Apartments**

The university owns and operates this complex which is comprised of 24 one-bedroom apartments and 50 two-bedroom apartments. These apartments offer a more independent living environment.

## **Mimosa Hall**

Mimosa accommodates 305 students. Rooms are arranged by suites. Each suite contains two to three double bedrooms and a bath.

## **Mullica Hall**

Mullica accommodates 103 students. Rooms are arranged by suites. Each suite contains two double bedrooms and a bath.

## **Townhouses**

The 113-unit complex accommodates more than 460 students in four and six bedroom townhouses. The complex also features a community center and a three-story parking garage.

## **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.

# ACADEMIC CALENDAR

## ACADEMIC YEAR 2005-06

### Fall Semester 2005

Thursday, September 1 .....	Classes Begin
Monday, September 5 .....	Labor Day (No Classes)
Monday, September 19 .....	Convocation
Thursday, October 20 .....	1st Quarter Concludes
Friday, November 11 .....	Veteran's Day Observed (No Classes)
Thursday-Friday, November 24-25 .....	Thanksgiving Recess (No Classes)
Tuesday, December 13 .....	2nd Quarter Concludes
Wednesday-Friday, December 14-16 .....	Final Week
and Monday-Tuesday, December 19-20 .....	Final Week
Tuesday, December 20 .....	Semester Concludes

### Spring Semester 2006

Tuesday, January 17 .....	Classes Begin
Monday, March 6 .....	3rd Quarter Concludes
Monday-Friday, March 13-17 .....	Spring Break (No Classes)
Friday, April 14 .....	Good Friday (No Classes)
Monday, May 1 .....	4th Quarter Concludes
Tuesday-Friday, May 2-5 .....	Final Week
and Monday, May 8 .....	Final Week
Monday, May 8 .....	Semester Concludes
Friday, May 12 .....	Commencement
Monday, May 29 .....	Memorial Day

## GLASSBORO CAMPUS SUMMER 2006

First 5 week session .....	May 30 – June 29
Second 5 week session .....	July 3 – August 3*
Six (6) week session .....	July 3 – August 10*
Eight (8) week session .....	May 30 – July 20*

## CAMDEN CAMPUS SUMMER 2006

Eight (8) week session .....	June 26 – August 11*
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\*Includes either Memorial Day or Fourth of July

**ACADEMIC YEAR 2006-07****Fall Semester 2006**

Monday, September 4 .....	Labor Day (No Classes)
Tuesday, September 5 .....	Classes Begin
Monday, September 18 .....	Convocation
Monday, October 23.....	1st Quarter Concludes
Friday, November 10 .....	Veteran's Day Observed (No Classes)
Thursday-Friday, November 23-24.....	Thanksgiving Recess (No Classes)
Friday, December 15 .....	2nd Quarter Concludes
Monday-Friday, December 18-22 .....	Final Week
Friday, December 22 .....	Semester Concludes

**Spring Semester 2007**

Tuesday, January 16.....	Classes Begin
Monday, March 5.....	3rd Quarter Concludes
Monday-Friday, March 12-16 .....	Spring Break (No Classes)
Friday, April 6 .....	Good Friday (No Classes)
Monday, April 30 .....	4th Quarter Concludes
Tuesday-Friday, May 1-4.....	Final Week
and Monday, May 7.....	Final Week
Monday, May 7 .....	Semester Concludes
Friday, May 11 .....	Commencement
Monday, May 28 .....	Memorial Day

**GLASSBORO CAMPUS SUMMER 2007**

First 5 week session .....	June 4 – July 5*
Second 5 week session .....	July 9 – August 2
Six (6) week session .....	July 9 – August 16
Eight (8) week session .....	June 4 – July 26*

**CAMDEN CAMPUS SUMMER 2007**

Eight (8) week session .....	June 25 – August 10*
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\*Includes either Memorial Day or Fourth of July

# DIRECTIONS TO CAMPUS

## Directions to Glassboro Campus

Rowan University is located in the southern New Jersey town of Glassboro, 18 miles southeast of Philadelphia. The campus is easily reached from the N.J. Turnpike, the Atlantic City Expressway, or any of the Delaware River bridges. For a detailed campus map go to [www.rowan.edu/campus\\_map](http://www.rowan.edu/campus_map).

### From the North

(Northern New Jersey, New York, etc.)

Take the N.J. Turnpike South to Exit 2 and take Route 322 East. At the first traffic light (3 miles) turn right and then bear left (.4 miles) to stay on Route 322. Continue on Route 322 (7 miles) to the campus.

### From Philadelphia

Take the Walt Whitman or Benjamin Franklin Bridge to I-676 South toward Atlantic City. Shortly after I-676 becomes Route 42 South, the Atlantic City Expressway, exit right onto Route 55 South. Take that to exit 50A (Glassboro Mullica Hill). Take Route 322 East (2 miles) to the campus.

### From the West

Take I95 to the Commodore Barry Bridge. Follow Route 322 East (15 miles) to the campus.

### From Central New Jersey

Take Route 70 West to I-295 South. Follow I-295 to Route 42 South, the Atlantic City Expressway. Exit Route 42 South onto Route 55 South. Follow that to exit 50A (Glassboro Mullica Hill). Take Route 322 East (2 miles) to the campus.

### From the East

Take the Garden State Parkway to the Atlantic City Expressway Route 42. Take the Expressway to Exit 38 (Williamstown). Turn left after exiting and follow Route 322 West (8 miles) to the campus.

### From the South

(Maryland, Delaware, etc.)

Take I-95 North to the Delaware Memorial Bridge. Take the N.J. Turnpike to Exit 2 and follow Route 322 East (10 miles) to the campus.

## Directions to the Camden Campus

Rowan University at Camden is located in the University District of the City of Camden on the corner of Broadway and Cooper Streets. It can easily be reached from Route 295, the Atlantic City Expressway Route 42, I-676 or any of the Delaware River bridges.

### From South Jersey

Follow Route 42 toward Walt Whitman Bridge. Take I-676 North to last exit before the Ben Franklin Bridge (exit 5B, Linden Street). At the light, turn left, at next light turn left and cross overpass. At next light (Cooper Street), turn right. Campus is at corner of Broadway and Cooper Street.

### From Philadelphia

Take the Ben Franklin Bridge. Take exit for Broadway. Campus is located on the left on the corner of Broadway and Cooper Street.

**From the North and South**

Take the New Jersey Turnpike (North or South) to exit 4. Take 73 North to 38 West to 30 West. Route 30 becomes Admiral Wilson Blvd. As you approach Camden, remain in right lane proceeding to Ben Franklin Bridge. At the last light before the bridge, turn left and drive over the overpass. At next light (Cooper Street) turn right. Campus is at the corner of Broadway and Cooper Street.

**From the West**

(Routes 70 & 38)

Proceed West toward Philadelphia to 30 West. Route 30 becomes Admiral Wilson Blvd. As you approach Camden remain in right lane proceeding to Ben Franklin Bridge. At the last light before the bridge, turn left and cross the overpass. At next light (Cooper Street) turn right. The campus is on the corner of Broadway and Cooper Street.

**Accredited by**

Middle States Association of Colleges and Schools\*  
Accreditation Board for Engineering and Technology  
American Chemical Society  
Association to Advance Collegiate Schools of Business  
Commission on Accreditation of Allied Health Education Programs  
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  
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Philadelphia, PA 19104  
267-284-5000

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AACSB: The International Association for Management Education  
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

**Notice of currency**

Rowan University reserves the right in its sole judgment and for any reason to make changes in its announced policies, requirements and fees and to cancel or modify any program or course at any time without prior notice.

**Non-discrimination policy**

It is the policy of Rowan University not to discriminate on the basis of sex, sexual orientation, handicap, race, color, religion or national or ethnic origin in its educational programs, admissions policies, employment practices, financial aid or other University-administered programs.

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