

ROWAN UNIVERSITY

Undergraduate Catalog 2004-2005

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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 7,040 full-time and 2,700 part-time students; approximately 570 full-time equivalent (FTE) faculty

Average Costs (2003-2004)*

Tuition & Fees	Room & Board	Total
In State		
\$7,258.00	\$7,248.00	\$14,506.00
Out of State		
\$12,654.00	\$7,248.00	\$19,906.00

**subject to annual change.*

Administrative Offices Telephone Numbers

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

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 and businesses of Glassboro raised more than \$7,000 to purchase 25 acres, which they offered to the state for free if it selected Glassboro as the site for the new college.

The land 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. In 1937, the school changed its name to New Jersey State Teachers College at Glassboro.

The college gained a national reputation as a leader in the field of reading education and physical therapy when it opened a clinic for children with reading disabilities in 1935 and added physical therapy for the handicapped in 1944. The college was one of the first in the country to recognize these needs and was in the forefront of the special

education movement.

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

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

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, where Kosygin was visiting to speak at the United Nations. 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 in the 1970s. As new majors and a Business Administration Division were added, the college's four divisions grew into schools, a board of trustees was formed and a satellite campus was opened in Camden. With a 1978 Division III National Championship in baseball—the first of 11 national championships—the athletic program established itself as one of the premiere athletic programs in the country.

The fifth president, Dr. Herman James, assumed the leadership of the college in 1984. Under his direction, Rowan established the first doctorate program in the state's college/university system, added the College of Engineering and College of Communication and attained university status. Dr. James also was 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.

In July 1992, industrialist Henry Rowan and his wife, Betty, donated \$100 million to the institution, then the largest gift ever given to a public college or university in the history of higher education.

Later that year, the school changed its name to Rowan College of New Jersey to recognize the Rowans' generosity.

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, seven teacher certification programs, 26 master's degree programs and a doctoral program in educational leadership. The tree-lined campus contains 42 buildings, including eight residence halls, four apartment complexes, a Student Recreation Center and 43 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 the construction of new academic buildings and residence halls, renovation of most of the existing facilities, implementation of a comprehensive landscaping plan and purchase of nearly 600 acres in nearby Harrison and Mantua townships for the University's third campus. The anchor of the new campus, located two miles west of Glassboro, will be the South Jersey Technology Park at Rowan University—a project expected to play a significant role in the economic development of the region.

Throughout its history Rowan has earned a reputation as a high quality, moderately priced university. Its programs and achievements have caught the attention of national organizations that evaluate colleges and universities. US News & World Report ranked 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, Rowan University has become an extraordinary comprehensive institution that

has improved the quality of life for the citizens of New Jersey and the surrounding states.

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 inter-group 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 administrative divisions and six academic colleges. The provost directs the University's academic functions, the vice president for student affairs directs

student and academic support services, the vice president for administration and finance directs financial, facilities and administrative functions, the executive vice president for university advancement directs development and external affairs, and the executive director of budget and planning provides direction for strategic planning and related activities.

The University is composed of a Graduate School and six academic colleges: Business, Communication, Education, Engineering, Fine & Performing Arts and Liberal Arts & Sciences. Each academic college and the Graduate School is directed by a dean. The provost and the three 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.

Rowan University is committed to four broad quality principles: student-centeredness, good practices in instruction, quality management practices, and efficiency and integrity of operations. Assessment of these four areas 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 2003-04 are:

Admissions Application (Graduate and Undergraduate):	\$50.00
Meal Plans:	
19 Meal Plan with \$400.00 Flex	\$2,770.00
14 Meal Plan with \$500.00 Flex	\$2,660.00
10 Meal Plan with \$600.00 Flex	\$2,510.00
7 Meal Plan with \$700.00 Flex	\$2,190.00

Freshman Acceptance Fee (not refundable)	\$100.00
Housing in Residence Hall	\$4,478.00-\$5,236.00
Residence Hall Security Deposit	\$200.00
Residence Hall Lock-Out Fee	\$5.00
Housing in Edgewood Park Apartments	\$4,686.00
Housing in Mansion Park Apartments (+electricity)	\$4,018.00
Housing in Triad Apartments	\$4,686.00
Apartment Security Deposit	\$200.00
Identification Card	\$10.00
ID Card Replacement	\$10.00
Deferred Payment Plan Fee	\$30.00
Late Payment Fee	\$25-50
Late Registration Fee	\$75.00
Returned Check Charge	\$25-50
Parking Fee	\$20.00
Student Accident and Health Insurance (subject to change)	\$86.00
Student Activity (p-t)	\$3.75/credit
(f-t flat rate)	\$56.25/semester
Student Center Fee (p-t)	\$16.30/credit
(f-t flat rate)	\$228.25/semester
General Services Fee (p-t)	\$21.00/credit
(f-t flat rate)	\$292.50/semester
Instructional Technology Fee (undergrad. matric & p-t)	\$10.00/credit
(f-t flat rate)	\$140/semester
Facilities Fee (p-t)	\$18.00/credit
(f-t flat rate)	\$214.00/semester
Student Teaching	\$180.00
Transcript	\$5.00
Music Practice Room Key Deposit	\$10.00
Library Fines	
First Notice	\$1.00
2nd Notice	\$3.00
3rd Notice	\$6.00
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 (2003–04)

are:

New Jersey resident (p-t) (f-t flat rate)	\$193.00/credit \$2,698.00
Non-resident (p-t) (f-t flat rate)	\$385.00/credit \$5,396.00

Graduate tuition rates (2003–04) are:

New Jersey resident (p-t) (f-t flat rate)	\$385.00/credit \$4,238.00
Non-resident (p-t) (f-t flat rate)	\$617.00/credit \$6,788.00

Expenses

The Business Office is responsible for all billing of students and for the collection of payments. A statement of expenses for the fall semester will be mailed 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. Students may qualify for the deferred payment program if they meet certain criteria. 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.

	Yearly	
	Residents	Commuters
Tuition (30 cr/year is average load)	\$5,396.00	\$5,396.00
General Service Fee	585.00	585.00
Instructional Technology Fee	280.00	280.00
Student Activity Fee	112.50	112.50
Student Center Fee	456.50	456.50
Facilities Fee	428.00	428.00
Room and Board	\$7,248.00*	
Total expenses	\$14,506.00	\$7,258.00

*Based on the following:

Residence Room (double)	\$4,478.00
19 Meal Plan	\$2,770.00

Tuition and fees for full-time out-of-state students is \$10,279.00/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 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 \$2,239 (double) per semester for residence halls and \$2343 per semester for Edgewood Park and Triad Apartments. Rates, which here are reported for 2003-2004, 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 \$2,009 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 \$21.00 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 \$10 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 publications, athletics and social functions.

Student Center Fee

This fee is charged to all students at \$16.30 per credit hour with a maximum of \$228.25/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 256-4910.

Facilities Fee

This fee is charged to all students at \$18.00 per credit hour with a cap of \$214.00 /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 non-refundable late payment fee between \$25 and \$50, depending on when payment is made.

Late Registration Fee

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

Parking

Commuting students may park on campus after purchasing a Rowan University parking decal. Decals are \$20. 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 \$10 charge is made for each replacement of a lost card. Replacement of this card due to loss or change of information must be initiated in the Registrar's Office.

Student Insurance

As a service to students, Rowan University makes available a low cost health and accident protection plan. The \$86 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 pro-rated on a weekly basis until the end of the fifth week of the semester, at which point there will be no refund for the remaining weeks of the term.

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 non-payment 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. January Priority Admission: all complete applications received by January 31st will receive a decision by March 1st.

March - All applications, official high school transcripts and SAT I/ACT scores, must be com-

plete 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. 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.

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 fol-

lowing 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. 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).

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; resumé 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 disadvan-

taged, 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 SAT I scores, 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 six-week 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 in regular classes 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.

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.

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 re-entrant 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. Re-entering students are required to return to the major under which they were matriculated at the time of leaving the University. However, once re-matriculated, 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

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). 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

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.

The William D. Ford Federal Direct 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.

The William D. Ford Federal Direct 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.

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.

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.

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 and scoring 1,300 or better on SAT I. 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.

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 \$500 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. \$1,500 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.

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, or www.armyrotc.com.

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

Atlantic Electric Scholarship

Robert Becker Memorial Scholarship

Marion and William Bickley Memorial Scholarship

Robert D. Bole Memorial Scholarship

Elizabeth M. Bozorth Recruitment Grant

Delta Kappa Gamma

Dr. L. Ward Broomall Memorial Scholarship

Marian E. Englehard Scholarship

Sharon Edwards Scholarship

GSC-Rowan University Alumni Association Undergraduate Scholarships

Anna and Louis Glassberg Memorial Scholarship

Dr. Abraham J. Lippman Memorial Scholarship

Marius H. Livingston Memorial Scholarship

Dr. James M. Lynch, Jr. Memorial Scholarship

AFL-CIO Peter J. McGuire Scholarships

New Jersey Bell Telephone Scholarships

Senator Walter Rand Award for Achievement

Irving Shipkin Scholarship

Mabel Spencer Scholarship

Mildred King Sangree Scholarship

Albert J. Taylor AFL-CIO Scholarship

Elizabeth Trantum Roth Scholarship

Hazel P. Valiant Scholarship

Beatrice Miller Van Doren Memorial Scholarship

Samuel and Mae Zankman Memorial Scholarship

STUDENT AFFAIRS

Student Affairs

Drew Calandrella
Vice President for Student Affairs
Savitz Hall
(856) 256-4283
calandrella@rowan.edu

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), Career and Academic Planning (CAP) Center, Dean of Students, Dining Services, Disability Resources, EOF/MAP, Financial Aid, Greek Life, Health Center, Housing, International Affairs, Intramural Programs, Judicial Affairs, Mentoring Programs, Multicultural Affairs, Orientation, Psychological and Counseling Services, Recreation Center, Registrar, Residence Life, Service Learning and Volunteerism, Scholarships, Student Center, Student Government Association, Student Information Services, Student Leadership.

Residence Life and University Housing

George Brelsford, Associate Vice President for Student Affairs,
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 Town Houses, the University owns and operates three fully furnished apartment complexes:

- Edgewood Park
- Mansion Park
- Triad Apartments
- Rowan Town Houses (due to open academic year 2004-2005)

On-campus apartments are reserved for upper-classmen.

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, 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 dean of students in Savitz.

Student Conduct

Students have the right and responsibility to organize as long as their behavior does not violate public law or the rights of others and does not interfere with the educational process.

The University expects students to conduct themselves in an acceptable manner at all times. The University will not permit conduct that demonstrates a disrespect for law, properties or the health, safety and welfare of members of the University community. In addition, the University will not permit conduct that interferes or attempts to interfere with academic processes or University functions.

The following are examples of misconduct that are not acceptable. These and similar activities are considered to be in conflict with the educational objectives of the University and thus subject to disciplinary action.

- All types of dishonesty, including plagiarism, knowingly furnishing false information to the University or University officials, forgery and alteration of or use of University documents or instruments of identification with intent to defraud.

- Intentional disruption or obstruction of teaching, studying, research, administration, disciplinary proceedings, public meetings, public programs or other University activities.
- Physical or verbal abuse of any person on University premises or at functions sponsored or supervised by the University.
- Theft from or damage to the University premises or damage to property of a member of the University community or on the premises.
- Failure to comply with directions of University officials acting in the performance of their duties.
- Violations of published institutional regulations, including those relating to entry and use of University facilities.
- Violation of published rules governing residence halls.
- Violation of law on all University premises, both buildings and grounds.

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.

Campus Judicial System

To assure fairness for all persons who are accused of violating University rules and regulations, Rowan University has established judicial procedures. This process has been established with the endorsement and cooperation of the student body, faculty and administration.

Rowan University's judicial system recognizes students' rights to due process. Students accused of violating University rules or regulations are guaranteed a speedy and fair hearing before one of several hearing boards on campus.

Each of these boards is governed by procedures that guarantee due process safeguards. No penalty can be recorded nor made permanent until accused students have had a fair chance to be heard. Students may appeal the decisions of these hearing boards to the next level.

Civil authorities have jurisdiction on the Rowan University campus. Cases deemed to be severe or that pose a serious threat to the safety and security of the University community may be referred directly to civil authorities.

Students will be held accountable for their off-campus actions and/or behaviors as they relate to established laws and regulations of federal, state and local agencies as well as the policies of the University.

Student Government Association

The Student Government Association (SGA), the official voice of students in University affairs, coordinates student activities on campus. All full-time 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.

Other Student Organizations

At Rowan University, SGA charters and finances over 150 student organizations. 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, 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

Z. Benjamin Blanding, 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.

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 and 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 unde-

clared 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 and 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 re-register 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, non-matriculated 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.

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 course grade, the student will document in writing the rationale for the grade dispute. The student must provide a copy of his/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.

1. Departmental Level: (a) The student and 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. (b) If the matter is not resolved, the student and instructor will meet with the department chair who will act as a facilitator to determine if resolution is possible.

These steps must take place within fourteen (14) working days from the date the student knew or should reasonably have known about the alleged unfair grade. The timing of the resolution of a disputed grade is very important to students for a variety of reasons, so faculty should make every effort to meet with students to discuss disputed grades as early in the process as possible. If the dispute cannot be resolved informally, faculty must continue to be available as much as is feasible to assist in the resolution of the dispute.

2. If the issue is not resolved at the department level, within seven calendar days of the departmental level meeting, the student shall schedule a meeting with the appropriate academic dean 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 calendar 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 of discussion at this stage.

3. If the matter is still unresolved, fourteen calendar days after the meeting with the academic dean or associate 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. Within ten 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.
5. 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.

Satisfactory Progress Toward a Degree

Satisfactory academic progress toward the degree is necessary in order to achieve the goal of completing an academic program at the University.

Satisfactory academic progress towards the degree is determined by the completion of basic skills requirements (where applicable) as well as the cumulative grade point average and the completion rate of courses attempted. All students must meet the minimum grade point average as stipulated by University policy.

Financial Aid Recipients

Federal and state financial aid agencies have strict requirements regarding satisfactory academic progress. In some instances, students experiencing academic difficulty may find that, while permitted to remain in school, some portion or all of their financial aid must be forfeited until they achieve satisfactory academic progress as defined by the funding agency. The requirements for full and part-time students are as follows:

The minimum number of credit hours needed to complete an undergraduate program is 120. A student is eligible to receive funding up to 171 attempted credit hours. Some programs limit funding on a semester basis. 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.

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. **Audited courses are not considered credits attempted.** A student must complete 70% of credits attempted to maintain satisfactory academic progress. Students admitted in special programs will be allowed to receive funding up to 180 attempted credit hours. Transfer credit accepted by the University will be included in the total of 171 or 180.

Credit hours earned in a summer session may be used in meeting these requirements. All financial aid recipients should achieve a C average (2.0) by the end of the second year of study and maintain at least a C average throughout the remainder of the undergraduate program.

Students may appeal the removal of financial aid for mitigating circumstances. If the appeal is approved, aid will be reinstated.

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 judiciary hearing records in the Office of the Dean of Students. 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 by court order. For details concerning this policy, contact 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 registering during or after September 1995 will be permitted to take up to 10% of the credits earned here Pass/No Credit. Students already registered will be permitted to complete their studies under the old policy of up to 25% of their credits as 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 applica-

tion 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 dif-

ferent 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. Elementary Education coordinate 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 general education requirements for both degrees according to the college(s) and major programs involved.
3. 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 failing 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 par-

tical 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

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Rowan University is an institution of higher learning in which priority is given to the intellectual development of its students. Intellectual development is held to be important for its own sake, essential as part of preparation for future careers and significant for the personal growth of students. Further, the University is committed to an academic tradition that encourages research and provides public service as a function of its social responsibility.

All academic programs offered at Rowan University have broad perspectives affecting the mind, body and spirit of its students. Intellectual pursuits often are matched by experiential enrichment-field experience, work study and personal involvement.

Students at Rowan University are expected to master bodies of knowledge. This mastery is typically accomplished by means of subject-matter specialization in combination with a required general education program strongly based in the liberal arts and sciences.

Academic excellence is core to all programs at Rowan University. Our faculty has the requisite expertise to assure the currency and high quality of the curriculum. The academic administrators and professional staff are selected according to their experience and expertise in curriculum, policy, and leadership. Support staff is essential to 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 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
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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

Marilyn Martin, Dean
Gregory Potter, Associate Dean
Campbell Library
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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 databases, 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.

Information Resources

Anthony Mordosky, Associate Provost
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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 appropriate to the degree plus a minimum of 30 semester hours in the academic major. Requirements for the major will vary from program to program, and some programs exceed 120 hours.

Rowan University 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. 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 division.

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.

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 other cultures and locales.

Broadly speaking, the general education program will:

1. Develop students' abilities to speak and write effectively, think clearly and critically, use computational, quantitative, and problem solving skills, as well as scientific thinking and modes of inquiry.
2. 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 world.
3. Have students explore the diverse ways in which human beings have confronted the perennial questions of human existence through various imaginative and discursive literary works.
4. Increase students' understanding of the complexity of issues in humanities, arts, social and natural sciences and the practice of free inquiry in their analyses and examination of values.

The Credit Hour Distribution By Degree is presented below. All of the semester hours listed below are to be considered minimum requirements unless a range is given.

General Education Areas	B.A.	B.S.	Specialized
Communication	9	9	9
Science and Mathematics	10	10	7
Social and Behavioral Sciences	12	9	6
History, Humanities and Language	12	9	6
Arts	3	3	3
General Education Electives	14	8	11
Total	60	48	42
Major requirements	30-39	60-64	60
Free elective	21	8	0
Total	120	120	120

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 prin-

principle, students should take no more than two courses from any one discipline within any of the assigned hours in the five banks. Students may not restrict courses to a single discipline, except in the Arts category.

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
 - b. College Composition II (or its equivalent)
 - c. Public Speaking (or its equivalent)

The equivalent must be a course proposed (within a discipline) by a specific department in consultation with the Composition and Rhetoric or Communication Studies Department and approved by the University Curriculum Committee and the Senate. These courses must meet all the student objectives listed in the standard course models for College Composition II and Public Speaking.
- II. All students must take at least one broad based literature course that is labeled as General Education Literature (LIT).
- III. All students must take at least one mathematics course from the mathematics bank of courses under Science & Mathematics.
- IV. All students must take at least one laboratory science course from the bank of courses under Science and Mathematics. Computer Science courses do not satisfy this requirement.
- V. All students must take at least one course labeled as Multicultural/ Global Studies (M/G). This course need not be a general education course.
- VI. 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.

- VII. All freshmen must take a course designated as Rowan Seminar (RS).
- VIII. Balance of hours: General Education electives may be selected by the student from all courses offered in the College of Liberal Arts & Sciences, OR courses listed in the General Education Banks, OR the course Health and Wellness. Courses should be assigned by departments only to meet standards recommended by accrediting bodies, statutory regulations, and/or professional societies, not to increase the hours required for the major. One exception is that Health and Wellness may be taken as this kind of elective and departments may require this course.
- 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.

The General Education approved courses are listed annually. That documentation is available in academic departments, the Career and Academic Planning Center and the Registrar's office.

APPROVED GENERAL EDUCATION COURSES

Communication (Written/Spoken)

Composition & Rhetoric

1501.111 College Composition I

^ 1501.112 College Composition II

Communication Studies

^ 1506.202 Public Speaking

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)

ACADEMIC AFFAIRS

0410.210	Human Anatomy & Physiology I (Lab 4 sh)	1701.201	Structures of Mathematics
0420.100	Introduction to Natural Resources	1701.202	Introduction to Geometry
0420.150	Human Ecology: Evolution Approach M/G	1702.100	Elementary Statistics
Chemistry and Physics		1702.260	Statistics I
1901.110	Principles of Physical Science	1703.125	Calculus: Techniques & Applications
1902.120	Selected Topics In Physics	1703.150	Discrete Mathematics
1902.140	Physics of Current Technologies (Lab 4 sh)	1703.160	Discrete Structures
1902.150	Physics of Everyday Life (Lab 4 sh)	4905.180	Honors Mathematics (H)
1902.175	Physics of Sound & Music (Lab 4 sh)	Psychology	
^ 1902.200-201	Physics with Calculus I, II (Lab 4 sh)	2001.104	Introduction to Psychology: Brain, Mind and Behavior
^ 1902.202-203	Physics non-Calculus I, II (Lab 4 sh)	Interdisciplinary	
1905.102	Chemistry of Everyday Life (Lab 4 sh)	4905.185	Honors Natural Resources (H)
1906.100	Chemistry I (Lab 4 sh)	4901.200	Issues in Women's Health
^ 1906.101	Chemistry II (Lab 4 sh)	Social and Behavioral Sciences	
^ 1906.105	Adv. College Chemistry I (Lab 4 sh)	Communication	
^ 1906.106	Adv. College Chemistry II (Lab 4 sh)	^ 0601.203	Mass Media and Influence
1911.120	Introduction to Astronomy (Lab 4 sh)	^ 0601.205	Mass Media and Influence (WI)
^ 1911.231	M/T in Modern Astronomy (Lab 4 sh)	0601.220	Intro to Communication Studies
^ 1911.241	Astronomy & Astrophysics (Lab 4 sh)	^ 0601.300	Communication Theory
1911.221	Exploration of the Solar System	^ 0699.462	Public Opinion
1913.101	Meteorology	1506.205	Persuasion & Social Influence
1917.110	Principles of Earth Science	1506.206	Interpersonal Communication
Computer Science		Economics	
0701.102	Introduction to Programming	^ 2204.310	Global Economics
^ 0701.200	Computing Environments	2204.100	American Economic System
0704.103	Computer Science & Programming	2204.101	Introduction to Economics-Macro
^ 0704.110	Intro to Programming Using Robots	2204.102	Introduction to Economics-Micro
Geography/Anthropology		Geography/Anthropology	
2206.101	Physical Geography	2202.201	Physical Anthropology
2206.103	Geology I (Lab 4 sh)	2202.202	Cultural Anthropology (M/G)
2206.110	Investigations in Physical Geography (Lab 4 sh)	2202.203	Introduction to Archaeology (M/G)
Health and Exercise Science		2202.210	Natives of South America (M/G)
1306.200	Basic Nutrition	^ 2202.215	Medical Anthropology (M/G)
Mathematics		2202.310	Indians of North America (M/G)
1701.115	Contemporary Mathematics	^ 2202.312	Anthropological Perspectives in Physical Growth & Develop (M/G)
1701.122	Precalculus Mathematics (4 sh)	2202.350	Comparative Cultures (M/G)
1701.123	College Algebra	2206.102	Cultural Geography (M/G)
^ 1701.130	Calculus I (4 sh)	2206.111	World Regional Geography (M/G)
1701.131	Calculus II (4 sh)	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/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

- 4905.190 Honors Social Sciences (H)
- 4901.102 An Introduction to the Social Sciences: Self & Society & Power
- 4901.103 Intro to African American Studies (M/G)
- 4901.130 Women in Perspective
- 4901.200 Issues in Women's Health
- ^ 4901.265 Computers and Society
- ^ 4901.266 Computers and Society (WI)

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)
- 1502.102 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)
- 1502.217 US Lit of Latino/a & Hispanic Peoples (LIT, M/G)

Foreign Languages & 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 Lit. in Translation
- 1107.101-102 Elementary Chinese I, II
- 1109.101-102 Elementary Latin 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
- 2205.268 African-American History to 1865
- 2205.269 African-American History since 1865
- 2205.272 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)

ACADEMIC AFFAIRS

^ 1509.129	Philosophy and Gender (M/G, WI)	1003.130	Art Appreciation
1509.130	Introduction to Symbolic Logic	1003.131	History of American Art
1509.220	Survey of Western Philosophy (M/G)	1003.220	Modern Art
^ 1509.221	Survey of Western Philosophy (M/G, WI)	1009.110	Experiencing Art
1509.226	Philosophy of Mind	<i>Music</i>	
^ 1509.227	Philosophy of Mind (WI)	1004.118	Music Fundamentals
1509.240	Philosophy and Society (LIT)	1004.127-428	Ensembles 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
^ 1509.241	Philosophy and Society (LIT, WI)	1006.102	General Music History
1509.250	Introduction to Ethics (LIT)	1006.109	Music Appreciation
^ 1509.251	Introduction to Ethics (LIT, WI)	1006.115	Growth & Development of Jazz
1509.310	Aesthetics	1006.117	Expressing Music
^ 1509.311	Aesthetics (WI)	1006.214	Musical Styles and Forms I
1509.368	Philosophy of Science	1006.215	Musical Styles and Forms II
^ 1509.369	Philosophy of Science (WI)	1006.335	Musical Styles and Forms III
1509.392	Contemporary Moral Problems (M/G)	1006.447	Music in World Cultures: Asia & Oceania (M/G)
^ 1509.393	Contemporary Moral Problems (M/G, WI)	1006.448	Music in World Cultures: Africa India, Near & Middle East (M/G)
<i>Political Science</i>		<i>Theatre/Dance</i>	
2207.200	Survey of Western Political Theory	1007.130	Living Theatre
<i>Religion</i>		1007.135	Oral Interpretation of Literature
1510.100	Introduction to Religion	1007.195	Exploring Social Issues Through Theatre
1510.110	Introduction to the Bible (LIT)	1007.215	Experiencing Acting
1510.200	Religions of the World (M/G)	1007.301	African, African-American Theatre: Intercultural Definitions
1510.210	Religion in America (M/G)	1007.339	History of Theatre to 1700
1510.220	Introduction to Buddhism (M/G)	1007.340	History of Theatre from 1700-1956
1510.230	Religions of Asia (M/G)	1007.440	Contemporary World Theatre (LIT, WI)
<i>Sec. Ed./Ed. Found.</i>		1008.135	Elements of Dance
0821.150	History of American Education	1008.146	World Dance Forms (M/G)
<i>Theatre/Dance</i>		1008.202	Tap I
1007.339	History of Theatre to 1700	1008.236	Modern Dance I
1007.340	History of Theatre from 1700-1956	1008.246	Ballet I
1007.440	Contemporary World Theatre (WI, LIT)	1008.256	Jazz Dance I
<i>Interdisciplinary</i>		1008.311	African Influences in American Dance (M/G)
4901.101	Intro to Humanities		
4901.120	Biology, History & Human Societies (M/G)		
4905.105	Honors Humanities (H)		
Arts			
<i>Art</i>			
0839.330	General Photography		
1003.100	Introduction to Visual Arts		
1002.300	Workshop in Art		

- ^ 1008.315 Creative Dance for Children
- ^ 1008.436 Dance History

Radio/Film/TV

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

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/Physics

- ^ 1907.464 Adv Organic Chemistry I

Composition and Rhetoric

- ^ 0601.304 Writing with Style
- ^ 0601.400 Writing for the Workplace
- ^ 1501.301 Writing, Technology & Research
- ^ 1501.401 The Writer's Mind

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/Anthropology

- ^ 2206.493 Research Seminar in Geography

History

- ^ 2205.299 Intro to Historical Methods

Law/Justice

- 2105.370 Theories of Crime & Criminality
- 2105.469 Seminar in Law/Justice
- ^ 2105.479 Seminar: Police Science

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/Film/TV

- ^ 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

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/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/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/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

Unless noted, all courses are 3 s.h.

^ All of these have prerequisites

(H) Honors Program

(WI) Writing Intensive

(M/G) Multicultural/Global

(Lab) Laboratory Science

(LIT) Broad-based literature course

General Education Electives

Any approved general education course from any of the above banks OR

Any course offered by any department within the College of Liberal Arts and Sciences OR

- 835.103 Health and Wellness

- 835.104 Offered by the College of Education.

The Rowan Seminar

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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/fresh-sem/>.

Semester Abroad Programs

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 Department of History
 Robinson Hall
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applebaum@rowan.edu

For over thirty years, undergraduates with a demonstrated record of achievement have participated in university approved overseas study. We offer programs in Australia, Africa, Asia, South and Central America, and Europe. Students from all colleges work with academic advisors in the major to develop plans of study that enable them to complete one semester or one year of study abroad. Individualized designs for international learning are tailored to complement learning in the major and enrich the fulfillment of professional plans. Scholarships and financial aid are applicable to all university sponsored international programs. For additional information, contact David R. Applebaum, Coordinator of International Education at (856) 256-4500 x3988.

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

Interdisciplinary Concentrations

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

African American Studies Concentration

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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 12 semester hours of electives selected from the core and related elective courses listed below. A minimum of three of the four electives should be selected from core courses list-

ed in Group A and one may be selected from Group B. 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. |
| 4901.103 | Intro. to African Amer. Studies |
| 1502.216 | Survey of African American Literature |
| | OR |
| 2205.269 | Afro-American History Since 1865 |
| 2. Electives | 12 s.h. |
| <i>Group A. Core Courses</i> 9 s.h. | |
| 1006.115 | Growth & Development of Jazz |
| 1006.220 | The Singing Music of African Americans |
| 1007.301 | African, African American Theatre: Intercultural Definitions |
| 1502.217 | U.S. Literature of Latino and Hispanic People |
| 2105.205 | Minorities, Crime & Justice |
| 2208.120 | Sociology of Minority Groups |
| 2205.268 | African American History to 1865 |
| 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 |
| 2205.388 | Comparative Race Relations |

2205.422 Women in American History

Group B. Related Electives 3 s.h

- 2205.170 Issues in American History
- 2202.202 Intro to Cultural Anthropology
- 2206.205 Geography of Africa
- 2205.213 Islamic Civilization
- 2205.270 Sub-Saharan Africa to 1800
- 2205.271 Sub-Saharan Africa Since 1800
- 2204.307 Economic Developments of Emerging Nations
- 2204.310 International Economics
- 2202.311 Peoples and Cultures of Africa
- 0821.320 Urban Educational Trends
- 2207.347 Politics and Society of Africa
- 2105.386 Law and Human Rights
- 2205.395 20th Century African Nationalism
- 2205.441 Imperialism and Colonialism
- 2207.441 Contemporary Problems of Modern Africa

Group C. Special Topics

- 0601.402 Selected Topics in Communication
African American Film
Harlem Renaissance

Asian Studies Concentration

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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.

Asian Studies

The Concentration requirements are as follows:

Required Course 3 s.h.

- 1501.112 Readings in Asian Literature
OR
- 2207.240 Intro to Asian Political Systems

Core Courses 9 s.h.

- 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 9 s.h.

- 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

Honors Studies Concentration

Mark Hutter, Coordinator
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Honors Studies 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, Honor 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., SAT s, 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 grad-

uation ceremonies, Honors 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 Studies courses are not restricted to students enrolled in the Honors Program. Students with memberships in honor societies within disciplines will also be allowed to take Honors Studies 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 Studies courses.

Honors Course 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).

Honors Thesis

An Honors independent research project and essay 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.

One upper level discipline-specific honors course may be substituted for one of the upper level courses.

International Studies Concentration

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The International Studies program is a flexible, interdisciplinary concentration available to students from all majors. It is designed to prepare students to live and develop their careers in an increasingly interdependent world.

Whether you wish to work in the private sector or in government, in a domestic company or in a multinational firm, there is no escaping from the reality of globalization. In this new economy, nearly every career you pursue will have an international facet.

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
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Leadership Studies

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 class-

room 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 credits that are distributed as follows:

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

Required Courses

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

Leadership Communication Core 3 s.h.
 1506.206 Interpersonal Communication

Interdisciplinary Core 6 s.h.

Choose any two electives (3 s.h.)

- 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

Women's Studies Concentration

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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.

- 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
2205.422	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

ROTC

Captain Kirk Appletoft, Coordinator
 Carriage House
 856-256-4014
 KAA33@drexel.edu

Our Program

The Army ROTC program is coordinated out of the host school, Drexel University. The primary purpose of Army ROTC is to develop leaders of character for the 21st century. Students enrolled in ROTC participate in a unique interactive program focused on leadership development with emphasis on self-discipline, integrity, confidence, and responsibility. Our intent is to help students improve themselves whether they decide to pursue a career as an officer in our Army or as a leader in the private sector.

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

Our Objectives

Teach leadership and management skills which will enhance a student's future success in either a military or civilian career. Commission the future officer leadership of the U. S. Army and motivate young people to be better citizens.

Our Scholarships

Army scholarships offer an excellent incentive to join the ROTC program. For more information, see Army R.O.T.C. under the scholarship section.

Our Cadets

Our program has approximately 150 highly motivated cadets. Typical activities experienced in our program are rappelling, orienteering, rifle marksmanship, various leadership challenges and our cadets participate in a variety of local and campus events. In addition to our team building and leadership enhancing activities, we offer Ranger Challenge and the Adventure Club for those who desire more out of their ROTC and college experience.

ROTC Time Commitments

(about 5 hours a week):

Military Science class:

1 hour per week. Day and Time varies.

Tuesday and Thursday: 0630-0730

PT (Physical Training)

Wednesday: 0600-0800

Leadership Lab at Drexel (All cadets)

Weekend Training

- 1 Field Training Exercise (FTX) per semester for the weekend at Ft. Dix.
- Additional Training for Juniors: Day training. About 3 weekend days per semester.

Optional Activities

Ranger Challenge. A highly competitive team specializing in military skills and physical fitness. This team competes in a yearly competition against other university ROTC programs in the tri-

state area. Start getting in shape now if you are interested in this high speed, low drag team!

Adventure Club. These are optional events for those who want more out of ROTC and their college experience. We do training such as: Rappelling, Squad Tactics, Paintballing, Trail Running, and Weapons Qualification. All of our training focuses on leadership and safety.

Color Guard. Take pride in the uniform and Army tradition by participating in the Color Guard. We support various events such as Veterans Day Ceremonies, Football Homecomings, Commencement Ceremonies and various local special events.

Scabbard and Blade. Join this Nationally Recognized Military Honors Society that focuses on academic and ROTC excellence.

How to Contact Us

You can contact Task Force Dragon Army ROTC at 215-590-8808, ext. 30 or email us armyrotc@drexel.edu. Check out our web site at www.taskforcedragon.com.

COLLEGE OF BUSINESS

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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.

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.

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.

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.

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 which are consistent with reasonable societal expectations.
- 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.

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. 39 for all-university requirements)

A. Communications 9 s.h.

1501.111 College Composition I

1501.112 College Composition II

1506.202 Public Speaking

B. Math and Science 13 s.h.

0701.200 Computing Environments

1703.125 Calculus: Techniques & Applications

1702.260 Statistics 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 9 s.h.

Choose courses from approved general education courses.

E. Arts 3 s.h.

Choose course from approved general education courses.

F. General Education Electives 9 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 30 s.h.

Freshman Year

0501.105 Business Perspectives

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. completion of the following courses
 - Business Perspectives
 - Principles of Finance
 - Organizational Behavior

Junior Standing as a Business Major is defined as:

1. Minimum of 57 credit hours completed
2. College of Business or Accounting major

Sophomore Standing as a Business Major is defined as:

1. minimum of 24 credit hours completed
2. completion of Business Perspectives

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
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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. in Accounting

The B.S. in Accounting requires the common core of the College of Business courses. Courses within the accounting major provide students with a broad understanding of accounting theory and practices, incorporating and infusing international and ethical issues. The program prepares students for a diversified range of career opportunities and

meets the requirements to sit for the Certified Public Accountant (CPA) Examination, as well as the Certified Management Accountant (CMA) Examination and the Certified Internal Auditor (CIA) Examination.

Students working toward a 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 48 s.h.

Major Area Requirements

Business Core 30 s.h.

- 0501.105 Business Perspectives
- 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
OR
- 0506.309 Organizational Behavior (WI)
- 0503.320 Accounting Information Systems
- 0506.402 Business Policy

Accounting Major Requirements 27 s.h.

- 0503.310 Intermediate Accounting I
- 0503.311 Intermediate Accounting II
- 0503.316 Concepts in Federal Taxation
- 0503.326 Cost Accounting
- 0503.410 Auditing
- 0503.416 Advanced Accounting
- 0503.428 Integrative Accounting Seminar
- 0504.435 International Financial Management
- 1498.400 Law for Accountants

Non-Business Requirements 6 s.h.

1702.261 Statistics II

One of the Following:

- 0601.400 Writing for the Workplace
- 0601.304 Advanced Writing with Style
- 1501.301 Writing, Research, and Technology
- 0601.555 Writing for Electronic Communities (Graduate course)

Free Electives 9 s.h.

Total Credits for the Program 120 s.h.

**B.S. in Business Administration,
Finance Specialization**

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

Business Core 30 s.h.

- 0501.105 Business Perspectives
- 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 OR
- 0506.309 Organizational Behavior (WI)
- 0702.334 Management Information Systems
- 0506.402 Business Policy

Finance Specialization 30 s.h.

- 0503.310 Intermediate Accounting I
- 0503.316 Concepts in Federal Taxation
- 0504.420 Financial Markets
- 0504.422 Financial Management I
- 0504.423 Financial Management II
- 0504.431 Investments/Portfolio Analysis
- 0504.432 Financial Intermediaries
- 0504.435 International Financial Management

Choose any two of the following:

0503.311	Intermediate Accounting II
0504.424	Seminar in Finance
0504.425	Risk Management
0504.430	Supervised Internship in Finance

Non-Business Electives 8 s.h.

Total Credits for the Program 120 s.h.

Management and Management Information Systems

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 lee@rowan.edu

The Management and Management Information Systems Department awards a B.S. in Business Administration with specializations in Management, Entrepreneurship, Human Resource Management and Management Information Systems (MIS). Department courses offer students a solid grounding in management theory that contributes to their professional preparation. Our 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 s.h.

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

Business Core 30 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
0501.105	Business Perspectives
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

Mgmt Information Specialization 31 s.h.

0702.300	Integrated Software Tools for Business
0702.322	Principles of System Design
0506.330	Managing International Business
0702.338	Design of Database Systems
0506.440	Information Systems Planning & Network Management
0704.103	Computer Science & Programming
0702.410	Advanced Database Management
0702.420	Seminar in MIS
0702.430	E-Business - Information Systems Perspectives

Choose one course from the following:

0503.420	Accounting Information System
0503.426	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	Intro Geographic Information Systems
2206.415	Advanced Geographic Information Systems
4901.265	Computer and Society

Non-Business Electives 8 s.h.

Total Credits for the Program 121 s.h.

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 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 30 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
0501.105	Business Perspectives
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.

0702.300	Integrated Software Tools for Business
0506.302	Management of Human Resources
0506.330	Managing International Business
0506.404	Quality Management
0506.405	Business/Mgmt Simulation
0506.461	Supervised Internship OR
0506.430	Business Field Experience

Management Electives 6 s.h.

0506.304	Organizational Change and Development
0506.326	Entrepreneurship and Small Business Management
0506.375	Managing Services
0506.415	Management Consulting Field Course
0506.420	Principles of Training and Training Management
0506.425	Management of Compensation
0506.430	Business Field Experience
0506.361	Supervised Internship (may be taken twice for a total of 6 cr.)
0507.430	Principles of Mgmt Science

0516.401	Labor/Employee Relations
0925.356	Occupational Safety
1498.335	Legal Aspects of Human Resource Management
1509.322	Business Ethics
2204.345	Labor Economics
2205.325	U.S. Labor History
2008.310	Industrial/Organizational Psychology

Business Electives 6 s.h.

Students must choose 6 credits from the following list. Students may tailor their electives to their special area(s) of interest.

Any non-required course in: Management, Accounting, Finance, Management Information Systems, Marketing, or any non-business course from the following list:

0601.203	Mass Media & Their Influence
0601.400	Writing for the Workplace
0604.330	Introduction to Advertising
0606.350	Intro to Public Relations
0704.233	Structured Design and Programming in COBOL
2208.334	Group Dynamics
1105.312	Spanish for Business
1506.245	Small Group Communications
1509.250	Introduction to Ethics
1509.322	Business Ethics
1702.261	Statistics II
2005.402	Psychology of Conflict and Conflict Resolution
2008.310	Industrial/Organizational Psychology
2204.200	History of Economic Ideas
2204.205	American Economic History
2204.215	Current Economic Problems and Policies
2204.282	Economic Statistics
2204.301	Intermediate Macroeconomics
2204.302	Intermediate Microeconomics
2204.330	Government and Business
2204.360	Urban Economics
2204.340	Regional Economics of Southern New Jersey
2206.301	Economic Geography
2208.333	Sociology of Works
2208.320	Personnel Psychology

Non-Business Electives 8 s.h.

Total Credits for Program **120 s.h.**

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:

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

General Education Requirements
(60 semester hours)

Business Core (30 semester hours)

Course Requirements:

Major Area Requirements

Business Core 30 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
0501.105	Business Perspectives
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.

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

Human Resource Management

Electives 12 s.h.

- 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
- 0506.361 Supervised Internship

or any upper-level non-required courses offered by Rowan University's College of Business

Non-Business Electives 8 s.h.

Total Credits for Program 120 s.h.

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 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 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 30 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

- 0501.105 Business Perspectives
- 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.

- 0506.340 Entrepreneurship and Innovation
- 0506.330 Managing International Business (M/G) OR
- 0509.379 International Marketing
- 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 6 s.h.

- 0509.378 Product, Price, and New Venture Management
- 0509.360 Services Marketing
- 0509.391 Business and Industrial Marketing
- 0506.304 Organizational Change and Development
- 0506.405 Business Management Simulation
- 0702.300 Integrated Business Software Tools
- 0503.426 Cost 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.

Non-Business Electives 8 s.h.

Total Credits for Program 120 s.h.

Marketing

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 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.

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	Physical Distribution
0509.382	Sales Force Management
0509.390	Selected Topics in Marketing
0509.391	Business and Industrial Marketing
0509.405	Management Communications and Public Relations
0509.411	Supervised Internship in Marketing
One Business Elective: any non-required 300 or 400 level marketing or business course.	

Free Non-Business Electives 8 s.h.

Total Credits for Program 120 s.h.

B.S. Business Administration, Marketing Specialization

General Education 52 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 30 s.h.

0501.105	Business Perspectives
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

Marketing Specialization 30 s.h.

Required:

0509.376	Consumer Behavior
0509.384	Research Methods in Marketing (WI)
0509.379	International Marketing (M/G)
0509.403	Strategic Marketing Management

Electives: Elective courses are generally offered only once an academic year.

COLLEGE OF COMMUNICATION

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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: Communication Studies, Journalism/Creative Writing, Public Relations, Advertising, Radio/TV/Film, and Writing Arts. The department of Composition and Rhetoric administers the general education writing program for the University and the Writing Arts specialization for coordinate majors. 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, Composition and Rhetoric, Journalism and Creative Writing, Public Relations/Advertising, and Radio/Television/Film.

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 new 130-seat screening theatre. Students can learn layout, desktop publishing and numerous other skills in the journalism laboratory.

Core Requirements

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

General Education 60 s.h.

- Communication* 9 s.h.
- 1501.111 College Composition I
OR
- 1501.105 Integrated College
Composition
- 1501.112 College Composition II
- 1506.202 Public Speaking
- Science and Mathematics* 10 s.h.
- Mathematics Lab Science (4 s.h.) Choice
- Social and Behavioral Sciences* 12 s.h.
- Sociology choice
- Psychology choice
- Economics or Political Science choice
- Choice
- History, Humanities & Languages* 12 s.h.
- Literature choice
- History or Philosophy choice
- Choice
- Arts 3 s.h.
- General Education Electives* 14/15 s.h.

Communication Studies

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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 Specialization

I. General Education 60 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
- 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
0699.363-4	Field Experience I & II
0699.462	Public Opinion
1010.270-1	Film History and Appreciation I/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 **21 s.h.**

VI. Total Credits in Program **120 s.h.**

Composition and Rhetoric

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The Department of Composition and Rhetoric 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 majors. In addition, the department offers a basic writing course, Improving Personal Writing Skills, as well as upper-level writing courses, including Writing for the Workplace and Writing with Style.

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.

I. General Education **60 s.h.**

Requirements are the same as for all Communication majors. Students should also refer to the all-university requirements on page 39 of this catalog.

II. Major Requirements **15 s.h.**

0601.203	Mass Media
0601.300	Communication Theory
1501.301	Writing, Research and Technology
1501.401	The Writer's Mind
1501.405	Evaluating Writing

III. Related Electives I (select 2) **6 s.h.**

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

IV. Related Electives II (select 1) **3 s.h.**

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

V. Related Electives III (select 2) **6 s.h.**

0602.317	Publication Layout & Design
1505.380	Linguistics
1506.206	Interpersonal Communication
1506.245	Small Group Communication

VI. Free Electives **30 s.h.**

All Elementary Education requirements are used as free electives.

VII. Total **120/121 s.h.**

Journalism and Creative Writing

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The Department of Journalism and Creative Writing houses the Journalism major and minor and the Creative Writing concentration.

Journalism Specialization

The Journalism specialization prepares students for a variety of career opportunities in the competitive, demanding world of print and electronic journalism and publishing. Student publications such

as The Whit, the campus newspaper; Avant, the campus literary magazine; and Venue, the magazine of student opinion, offer students the opportunity to gain valuable professional experience and are housed in this department.

I. General Education 60 s.h.

Requirements are the same for all Communication students; see page 65.

II. Major Requirements 27 s.h.

- 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

III. Related Electives 12 s.h.

- 0602.313 Magazine Article Writing
- 0602.314 Photojournalism
- 0602.317 Publication Layout and Design
- 0699.363, 364, 365 Communication Field Experience
- 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
- 0603.320 Electronic Journalism I: Radio
- 0602.305 Electronic Journalism II: TV

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

IV. Free Electives 21 s.h.

V. Total Credits in Program 120 s.h.

Minor in Journalism

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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.

I. Required Courses 9 s.h.

- 0601.203 Mass Media and Their Influences
- 0602.310 News Reporting I
- 0602.318 Journalistic Sources of Information

II. Electives (choose three) 9 s.h.

- 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
- 0603.320 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.

Creative Writing

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The College of Communication at Rowan University offers a program of study in creative writing leading to a concentration. In order to qualify for the concentration, you 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. You need at least a B in these courses to pursue a concentration. After completing the introductory courses, you are required to consult with the advisor who will help you design the rest of your 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, you 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 your 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. Check the catalog for prerequisites.

1507.290	Creative Writing I
1507.291	Creative Writing II
1507.309	Writing Children's Stories
1507.391	Advanced Creative Writing
1507.393	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

Public Relations/Advertising

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 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

Esther J. Mummert, Advisor
 Bozorth Hall
 856-256-4090
 mummerte@rowan.edu

I. General Education **60 s.h.**
 Requirements are the same for all Communication students; see page 65.

II. Major Requirements	33 s.h.
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)
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)
0699.361	Introduction to Survey Research
0699.363, 364, 365	Communication Field Experience

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

Select two courses from the following groups:

<i>Group 1. Advertising/Marketing/Management</i>	
0604.331	Print Media Copywriting
0604.432	Media Planning
0604.430	Electronic Media Copywriting
0604.433	Direct Response Advertising
0506.101	Introduction to Management
0509.290	Marketing Basics
0509.384	Research Methods in Marketing
0509.350	Management of Advertising and Promotion
<i>Group 2. Communication</i>	
0602.310	News Reporting I
0602.313	Magazine Article Writing
0602.312	Special Journalistic Writing
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
<i>Group 3. Professional Skills</i>	
0839.386	Electronic Publishing Systems
1002.300	Workshop in Computer Art
0839.330	General Photography
1009.351	Computer Art Techniques I (w/permission of instructor)
<i>Group 4. Professional Background</i>	
2005.206	Social Psychology
1509.110	Logic of Everyday Reasoning
0506.300	Organizational Behavior
0601.403	Field Experience
1509.250	Introduction to Ethics

IV. Free Electives 21 s.h.
V. Total Credits in Program 120 s.h.

Advertising Specialization

Esther J. Mummert, Advisor
 Bozorth Hall
 856-256-4090
 mummerte@rowan.edu

I. General Education 60 s.h.
 Requirements are the same for all Communication students; see page 65.

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
0604.431	Advertising Campaigns (Spring)
0604.432	Media Planning
0606.350	Intro to Public Relations
0509.290	Marketing Basics

III. Related Electives 6 s.h.

0509.372	Retailing
0509.376	Marketing & Consumer Behavior
0509.378	Product, Price & New Venture
0509.382	Sales Force Management
0604.433	Direct Response Advertising
0607.335	Communication Law
0699.361	Intro to Survey Research
0699.363	Communication Field Experience (3 or 6 s.h.)

IV. Free Electives 21 s.h.
V. Total Credits in Program 120 s.h.

Radio/Television/Film

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 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.

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

I. General Education 60 s.h.
 Requirements are the same for all Communication students; see page 65.

II. Major Requirements 24 s.h.

0601.203	Mass Media
0601.300	Communication Theory
0603.220	Intro to Electronic Media
0603.221	Radio Broadcasting I
0603.222	TV Production I
0603.340	RTF Research & Criticism
1010.271	Film History and Appreciation I
1010.370	Film Theory and Technique 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
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
0603.320	Electronic Journalism I: Radio
0603.393	Film Scenario Writing
0603.433	TV Program 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
0601.402	Special Topics: RTF Field Experience
0601.402	Special Topics: Studio Practicum
0701.100	Computer Literacy
0839.330	General Photography
1010.271	Film History II
1010.272	Images of Women in Film
1010.371	Film Theory and Technique II
1010.372	American Film Directors
1010.373	The Movie Industry
1010.470	Advanced Filmmaking
1010.471	Techniques of Documentary Films

0603.321	TV Production II
0603.331	Radio Broadcasting II
0603.335	A/V Production Systems
0603.450	Television Documentary and Field Production
0601.405	Independent Study

III. Free Electives 21 s.h.

IV. Total Credits in Program 120 s.h.

Radio/Television/Film Specialization - RTF Track B - Critical Studies

I. General Education 60 s.h.

Requirements are the same for all communication students; see page 65.

II. Major Requirements 24 s.h.

0601.203	Mass Media
0601.300	Communication Theory
0603.220	Intro to Electronic Media
1010.373	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)

1010.271	Film History & Appreciation II
1010.372	American Film Directors
1506.205	Persuasion and Social Influence
1010.272	Images of Women in Film
0601.402	Special Topics in RTF Studies
0601.402	Special Topics: RTF Field Experience
0601.405	Independent Study

III. Free Electives 24 s.h.

IV. Total Credits in Program 120 s.h.

COLLEGE OF EDUCATION

Carol Sharp, Dean
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Mark Meyers, Associate Dean
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Mission

The College of Education provides an intellectually rigorous and challenging environment for the professional preparation of leaders in education and selected health-related services. Built upon a liberal education, the programs in the College of Education combine learning in diverse settings with personal and collective study that promotes professional achievement and personal fulfillment.

Goals

All undergraduate programs are rooted in the evolving knowledge base of teacher education and related disciplines. The theme of “Educator as Reflective Decision Maker” forms a unifying bridge through eight interconnected goals. The goals of the College’s teacher preparation programs are designed to enable graduates to fulfill the following roles:

- curriculum/program designer
- classroom/facilities manager
- educational communicator/collaborator
- scholar/professional/classroom researcher
- decision maker/problem solver
- advocate for cultural and learning diversity
- technology user/producer
- effective instructor/facilitator

Accreditations

The Rowan University teacher education program is the most comprehensive in New Jersey

and has consistently earned national accreditation from the National Association of State Directors of Teacher Education and Certification (NASDTEC) and the National Council for the Accreditation of Teacher Education (NCATE).

Programs Offered

Bachelor’s degree programs are available in Elementary/Early Childhood Education, Collaborative Education (Co-Teach), Health and Exercise Science, School Nursing and Teacher of the Handicapped. In addition, the College of Education offers non-degree teacher certification programs designed for students with a major within the College of Liberal Arts and Sciences, the College of Fine and Performing Arts or the College of Business. This program provides students the opportunity to pursue teacher preparation and certification on the secondary level concurrently with their academic majors.

Certification specializations include: art, music, general business, physical science, biological science, English, social studies, French, Spanish, mathematics and speech, arts/dramatics.

Endorsements (second certificates) are available in psychology, bookkeeping, accounting and data processing.

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 five-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.

Step I

Requirements for Admission to Certification Program

Application procedures initiated in the required sophomore field experience course. Application filed during sophomore year for four year Rowan students; approval granted beginning of junior year. Application filed during first semester of junior year for transfer students; approval granted end of the semester.

1. Attainment of minimum score on the Rowan University Placement Test, as determined by the College of Education.
2. Demonstration of proficiency in oral and written communication through completion of appropriate general education coursework.
3. Successful completion of the course, Teaching As A Profession.
4. A minimum of 30 semester hours in General Education.
5. A minimum overall GPA of 2.5.
6. Completion of minimum number of credit hours in/for the major; number determined by certifying department.
7. Satisfactory performance and evidence of interest in teaching as demonstrated in the sophomore field experience.
8. Departmental interview/narrative statement prepared by instructor of sophomore field experience course.
9. Qualifying score on Praxis I: Pre-Professional Skills Test or Computer-Based Test.

Step II

Requirements for Admission to Pre-Student Teaching Experience (Junior Practicum).

Application filed during first semester of junior year; approval granted same semester.

1. A minimum overall GPA of 2.5, with a grade of C or better in all course work.
2. Admission to certification program.
3. Completion of minimum number of courses in major; number determined by certifying department.
4. Completion of 60 semester hours applicable to student's program.

Step III

Requirements for Admission to Student Teaching

Application for student teaching filed during junior year; approval granted after completion of junior year.

Application filed for New Jersey Teacher Certification Testing Program-Praxis II

1. A minimum overall GPA of 2.75 with a C- or better in all course work.
2. A minimum GPA of 2.5 in coordinate or technical major (Individual departments/majors may require higher GPA).
3. A minimum GPA of 3.0 in subject matter specialization for secondary education students.
4. A minimum GPA of 3.0 in professional course work.
5. Completion of minimum number of courses in major; number determined by certifying department.
6. Completion of 90 semester hours applicable to student's program.
7. Recommendation of junior field experience supervisor.
8. Recommendation from Liberal Arts/Fine Arts/Business chairperson or advisor for secondary education students.
9. Approval by College of Education certifying department.

Step IV

Requirements for Institutional Recommendation for Certification (Certificate of Eligibility with Advanced Standing)

Application filed at beginning of final semester in the Dean's Office, College of Education; preliminary approval occurs during final semester; departmental/institutional recommendation occurs after completion of senior year.

1. A minimum overall GPA of 2.75 with a grade of C- or better in all course work.
2. A minimum G.P.A. of 2.5 in coordinate or technical major.
3. A minimum G.P.A. of 3.0 in the major for secondary subject matter certification candidates.
4. A minimum GPA of 3.0 in professional course work (for certification candidates).
5. Successful completion of student teaching.
6. Recommendation of public school personnel.
7. Attainment of baccalaureate degree.
8. Approval of department recommending certification.

Step V

Requirements for filing for N.J. Instructional Certificate

Application is filed with the Dean's Office, College of Education at the beginning of the final semester of the program.

1. Institutional recommendation.
2. Attainment of appropriate score on New Jersey Teacher Certification Test-Praxis II.
3. State Department of Education verification of transcripts and related documentation.
4. Enters teaching with a Certificate of Eligibility with Advanced Standing (signifying completion of collegiate preparation program with an academic major; recommendation by dean/director; and a passing score on appropriate Praxis II).
5. Receives offer of employment to teach in field of qualification with Provisional Instructional Certificate.

6. Successful completion of provisional year of teaching under mentorship program.
7. Recommendation by public/private school for the permanent instructional certificate.

Presently, candidates for Teacher of the Handicapped certification are exempt from the PRAXIS II and Induction Year process.

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, and
- 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 Office of Field Experiences

The Office of Field Experiences schedules and facilitates the placement of all students requiring field experiences in a school or clinical setting.

The Thomas E. Robinson Beginning Teacher Induction Center

The Thomas E. Robinson 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

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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

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"Teachers are more than any other class the guardians of civilization." - Bertrand Russell

Our nationally accredited elementary education program recognizes this impact that teachers have on the future. The program is planned for students seeking New Jersey teaching certification in grades K-8. Students complete requirements for two Bachelor's Degrees: one in elementary education and one in an approved coordinate major from the College of Communication, Fine and Performing Arts, 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 coordinate major. Program guides for each coordinate major are available in the Elementary/Early Childhood Education office. Once accepted into the elementary education major, students plan their programs in consultation with elementary education and coordinate major academic advisors.

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

The Department also offers a Bachelor's Degree in Elementary Education with Specialization in Early Childhood. This program leads to certification to teach pre-school through grade 3 and requires a coordinate major.

B.A. in Elementary Education

I. General Education Requirements 60 s.h.

Communication 9 s.h.

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

Science/Math/Technology 10 s.h.

- Physical or Biology Lab Science
- 1701.201 Structures of Mathematics
- Mathematics Elective

Social and Behavioral Science 12 s.h.

- 2001.100 Intro to Psychology: Personal, Emotional and Social Interaction
- 2009.209 Child Development
- Geography Elective
- Choice of one Elective

History/Humanities/Language 12 s.h.

- 2205.101 Western Civilization
- 2205.120 World History
- 2205.100 U. S. History
- English Literature Elective

Arts 3 s.h.

Art, Music, or Theatre Arts Elective

General Education Electives 15 s.h.

- 0835.103 Health and Wellness
- 0822.215 Educational Psychology
- Non-lab Science (Biological or Physical)
- 0821.150 History of American Education
- Elective

II. Coordinate Major Requirements 30-65 s.h.

Elementary Education majors may choose one of the following coordinate majors:

- American Studies* 36 s.h.
- Art* 43.5 s.h.
- Biological Science* 50 s.h.
- Chemistry* 61 s.h.
- Child Drama* 34 s.h.
- Communication: Writing Arts* 30 s.h.
- Computer Science* 62 s.h.

English 36 s.h.

Geography 36 s.h.

History 36 s.h.

Mathematics 39-40 s.h.

Mathematics/Science 36-37 s.h.

Music 35-37 s.h.

Physical Science 56-65 s.h.

Sociology 33 s.h.

Spanish 39 s.h.

Theatre Arts 39-42 s.h.

III. Professional Major Requirements

Elementary/Early Childhood Education 30 s.h.

Curriculum Sequence

- 0801.101 Teaching as a Profession
- 0830.281 Foundations of Reading
- 0802.290 Educational Studies I: Curriculum Planning and Decision Making
- 0802.350 Educational Studies II: Problems of Practice
- 0802.370 Educational Studies III: Subject-Specific Pedagogy
- 0802.390 Educational Studies IV: Organizing and Managing Instruction
- 0837.209 Health Education in the Elementary School
- 0802.480 Student Teaching
- 0802.481 Student Teaching Seminar

IV. Pre-professional Social and Behavioral Foundations Sequence Requirements 9 s.h.

- 2009.209 Child Development
- 0822.315 Educational Psychology
- 2208.221 Social Problems

V. Total Credits for Program 121-152 s.h.

Only students approved as Elementary Education majors may enroll in Educational Studies I, II, III, IV, Student Teaching and Student Teaching Seminar.

Health and Exercise Science

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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 Health and Exercise Science 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. 39 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

1905.102 Chemistry for Everyday Life (lab)

1702.100 Elementary Statistics

HISTORY, HUMANITIES AND LANGUAGE 12 S.H.

1105.101/102

2 Spanish language courses or approved alternate

Any LIT elective

Any M/G elective

SOCIAL AND BEHAVIORAL SCIENCES 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

ARTS 3 S.H.

GENERAL EDUCATION ELECTIVES 14 S.H.

0701.100	Computer Literacy or equivalent
0701.200	Computing Environments
2008.310	Industrial/Organizational Psychology
2008.220	Personnel Psychology Elective

II. Major Core 31 s.h.

(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
0835.230	Technology & Assessment in Health & Exercise Science
0835.109	Fitness & Adventure Activities

III. Specialization Courses 30 s.h.

(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

Melvin Pinckney, Advisor

Esby Gym

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Douglas P. Mann, Coordinator

Esby Gym

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Students must meet the following criteria to be eligible to apply to the formal athletic training specialization. Students apply to the formal specialization in the spring of the sophomore year or spring of first year for transfer students, depending on coursework completed.

Students must have at least a 2.50 G.P.A. with no grade lower than a C in the athletic training core and no grade lower than a C- in any other course. The following courses need to be completed prior to enrollment in the formal specialization, Biology I or Human Focus or Introduction to Psychology (Personal, Emotional, Social), Introduction To Athletic Training, Prevention and Care of Athletic Injuries, Pathology and Evaluation I and II, Anatomy and Physiology I and II, Safety First Aid and Prevention, Advanced Emergency Care, and Contemporary Health I or II. Students will need to pass a proficiency examination and an interview with the selection committee to gain entry into the formal specialization.

Once in the formal athletic training specialization the following criteria must be met to satisfy program retention: Maintenance of a G.P.A. of at least a 2.50, no grade lower than a C in athletic training core or C- in any other course, Maintenance of CPR and First Aid Certification, Maintenance of athlete confidentiality, to conform to the ethical standards of the University, and satisfactory fulfillment of all clinical responsibilities.

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. affective skills and appropriate demeanor and rapport that relate to professional education and quality patient care.

B. Athletic Training Specialization

I. General Education 59-62 s.h.
 (dependent on Computer Literacy)
 (a minimum GPA of 2.5 must be maintained; see p. 39 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	11 S.H.
0410.212 Anatomy and Physiology	
1905.102 Chemistry for Everyday Life (lab)	
1702.100 Elementary Statistics	

HISTORY, HUMANITIES & LANGUAGE	12 S.H.
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SOCIAL AND BEHAVIORAL SCIENCES	12 S.H.
2009.210 Adolescent Development	
2001.100 Intro to Psychology: Personal, Emotional and Social Interactions	

ARTS	3 S.H.
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GENERAL EDUCATION ELECTIVES	15 S.H.
0701.100 Computer Literacy (option to test out)	
0401.113 Biology I with lab (Human Focus)	
0410.212 Anatomy and Physiology II	
1902.202 Physics	

II. Major Core 28 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	
0835.135 Intro to Health & Exercise Science	
0837.192 Contemporary Health I	
0837.193 Contemporary Health II	
0835.235 Safety, First Aid & Prevention	
0835.230 Technology & Assessment in Health & Exercise Science	

COLLEGE OF EDUCATION

0835.109 Fitness & Adventure Activities
1306.200 Basic Nutrition

III. Specialization Courses 41 s.h.

(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
0835.338/339/340/341 Clinical Experience in Athletic Training I-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 128 s.h.

B.A. in Health and Exercise Science: Teacher Certification Specialization

Melvin Pinckney, Advisor
Esby Gym
856-256-4576
pinckney@rowan.edu

C. Teacher Certification Specialization

I. General Education 60 s.h.

(a minimum GPA of 2.5 must be maintained; see p. 39 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 & LANGUAGE 12 S.H.

0821.150 History of American Education

SOCIAL AND BEHAVIORAL SCIENCES 12 S.H.

2009.210 Child Development
2009.209 Adolescent Development
2001.100 Intro to Psychology: Personal, Emotional and Social Interactions
2208.120 Intro to Sociology
0837.210 Consumer Health Decisions

ARTS 3 S.H.

1008.135 Elements of Dance

GENERAL EDUCATION ELECTIVES 14 S.H.

0701.100 Computer Literacy or equivalent
0822.215 Educational Psychology

II. Major Core 30 s.h.

(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
0835.230 Technology & Assessment in Health & Exercise Science
0835.109 Fitness & Adventure Activities

III. Specialization Courses 26 s.h.

(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 Form

IV. Professional Certification Courses 19 s.h.

0801.101 Teaching as a Profession

- 0830.310 Teaching Reading
- 0835.392 Junior Field Experience
- 0835.460/461 Student Teaching
- 0835.465 Senior Seminar

V. Total Credits in Program 135 s.h.

Interdisciplinary Co-Teach Program

Janet G. Moss, Coordinator
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 moss@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 classroom that will be 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 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 track of the Master of Science in Teaching program. 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.

COMMUNICATIONS BANK

- 1501.105 College Composition I
- 1501.111 College Composition II
- 1506.202 Public Speaking

SCIENCE/MATHEMATICS BANK

- 1701.115 Contemporary Math
- 1701.201 Structures of Math
Lab Science
Choice

SOCIAL & BEHAVIORAL SCIENCES BANK

- 2206.201 Geography of US/Canada
- 2207.110 American Government
- 2208.120 Introduction to Sociology
- 2009.209 Child Development

HISTORY/HUMANITIES/LANGUAGE BANK

- 0821.150 History of American Ed
- 2205.150 US History to 1865
- 2205.151 US History Since 1865
- 1502.113 Readings in US Literature

ARTS BANK

- 1003.131 History of American Art 3 S.H.

GENERAL EDUCATION ELECTIVES

- 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
OR
Western Civilization

II. Liberal Arts major 36 s.h.

See American Studies

III. Education major 31 s.h.

- 0801.102 Learning Communities
- 0801.103 Foundations of Education
- 0808.110 Introduction to Special Education
- 0801.200 Literacy, Learning and Curriculum
- 0801.300 Instructional Planning and Collaboration

0801.301	Instructional Implementation and Collaboration
0801.401	Developing and Adapting Instruct in Elem. Class
0801.402	Developing and Adapting Assessment for All Learners
0837.209	Health Education for Elementary School Teachers
0801.400	Teaching in Inclusive Classrooms (Spring, senior)

Collaborative Education (BA)
(Four year total) 127 s.h.

IV. Master of Science in Teaching: Collaborative Teaching 36 s.h.

0826.597	Institutions and Agencies
0827.572	School Law and Public Policy
0810.581	Teaching Strategies for Managing Behavior
0801.601	Clinical Internship I
0801.603	Clinical Seminar I
0824.502	Initiation of Internship Project
0824.565	Analysis and Application of Research
0830.530	Teaching Reading to the Exceptional Child
0801.605	Clinical Internship II
0801.607	Clinical Seminar II
0824.602	Development of Internship Project
0821.504	Foundations of Cross Cultural Education
0824.608	Internship Project Report

Five Year Total 163 s.h.

Optional Reading Certification 9 s.h.

Reading

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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:

0830.301	Foundations of Reading
0830.310	Teaching Reading in the Content Areas
0830.319	Pedagogy II: Teaching Reading in the Content Areas
0830.320	Language Development, Emergent Literacy & Reading in Young Children
0830.322	Teaching Reading to Children with Special Needs – WI

Students should consult certification program advisors.

*denotes Co-Teach

**denotes prerequisite required

Teacher of Reading Endorsement

Kathy A. Ganske, Program Advisor
 Robinson Hall
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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. (NOTE: CO-Teach students who

are admitted to the reading certification program must complete, in addition to their regular program, those courses identified below with CT. Students should consult with the program advisor regarding prerequisites.)

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

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

*denotes Co-Teach

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

- 0830.301 Foundations of Reading
- 0830.310 Teaching Reading in the Content Areas
- OR
- 0830.319 Pedagogy II: Teaching Reading in the Content Areas
- 0830.322 Teaching Reading to Children with Special Needs-WI**
- 0830.347 Phonics and Spelling in the Reading/Writing Classroom** CT*
- 0830.350 Using Children's Literature in the Reading/Writing Classroom** CT*

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** CT*

(Admittance to this course requires program advisor's Signature.)

Category C: Reading Related Courses

Students select a maximum of 4 courses from this bank.

- 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
- 2002.307 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

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Secondary School Teaching Program

Designed for the student with a 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. The Secondary School Teaching Program has been designed to reflect the state-of-the-art knowledge base in teacher education. Several courses require field experiences in nearby public schools.

Certification specializations include:

Art, music, general business, physical science, biological science, English, social studies, French, Spanish, mathematics, and speech/arts/drama. Endorsements (second certificates) are available in psychology, bookkeeping and accounting and data processing.

Because of new certification regulations that took effect in January 2004, changes will be made to the requirements. Students should contact the department advisor for current information.

Undergraduate Certification

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Admission to Rowan University does not guarantee admission to the Secondary Education Certification Program. A separate admission process takes place in the sophomore year for students who enter Rowan as freshmen and in the junior year for transfers. The first step in the process is to take the introductory course in teaching. Due to curriculum changes in the College of Education, students entering Rowan in the fall of 2004 will begin their professional education sequence with a new introduction to teaching course. Freshmen should check with the department to be sure they are registered in the appropriate course. Students who are sophomores or higher in Fall 2004 begin their professional education sequence with the course 0801.101, Teaching As A Profession. Once enrolled in the introductory course, students should sign up for and take the Praxis I test. Information on the test is available in the Office of Field Experiences on the second floor of Robinson Hall. Maintaining good grades is the most important preparation for admission to Secondary Education. Applicants should have a GPA of at least 3.0 in their academic major and professional courses and an overall GPA of 2.75

Starting in the sophomore year and extending through the senior year, students complete a series of courses with field experience components in the public schools. This series starts with 0803.201 Pedagogy I, continues in the junior year with Pedagogy III the practicum course in the student's academic specialty and culminates in the senior year in a full semester of student teaching, 0803.481 Pedagogy IV: Student Teaching.

All programs include 6 s.h. of social, humanistic and behavioral foundations of education: 0821.301 Educational Policy I and 0821.401 Educational Policy II.

In addition to the above, all candidates for secondary teacher certification will take 0830.381 Pedagogy II: Teaching Reading in Content Areas.

The secondary school 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 an academic advisor regarding program and degree requirements and with the certification advisor in the Secondary Education Department regarding certification requirements. This is particularly important for students beginning the program in Fall 2004 because of new certification requirements in New Jersey.

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 rearticulated 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, technology, social and behavioral sciences, history, humanities and language, and fine and performing arts. General Education course work should include a course in Adolescent Development, Sociology, History of American Education and Health and Wellness. For more information on specific General Education requirements, students are encouraged to consult with departmental advisors.

II. Academic Major

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

III. 0822.315 Educational Psychology 3 s.h.

IV. Professional Education 30 s.h.

0801.101	Teaching As A Profession	1 s.h.
0803.201	Pedagogy I: Organization and Management for Student Learning	3 s.h.
0830.381	Pedagogy II: Teaching Reading in the Content Area (Prerequisite: Pedagogy I)	3 s.h.
0821.301	Educational Policy I: Introduction to Decision Making (Prerequisite: Teaching As A Profession)	3 s.h.

xxxx.xxx	Pedagogy III: Practicum in Secondary Teaching (Prerequisite: Pedagogy I) 5 s.h.
0833.451	Mathematics Teaching
0834.451	Science Teaching
0838.451	General Business Teaching
0850.451	English/Language Arts Teaching
0851.451	Secondary Foreign Language Teaching
0852.451	Social Studies Teaching
0821.401	Educational Policy II: Seminar in Decision Making (Prerequisites: Teaching As A Profession and Educational Policy I) 3 s.h.
0803.481	Pedagogy IV: Student Teaching (Prerequisites: Teaching As A Profession, Educational Policy I, Pedagogy I, Pedagogy II, and Pedagogy III) 12 s.h.

Post Baccalaureate Certification

William J. Clarke, Advisor
 Robinson Hall
 856-256-4761
 clarkew@rowan.edu

Post Baccalaureate Certification

This non-degree program is designed for the college graduate wishing secondary school teacher certification. Specializations are available in art, music, general business, biological science, physical science, English, French, Spanish, mathematics and social studies. Endorsements (second certificates) are available in data processing and psychology. For the associate educational media specialist certification, please refer to the Graduate Catalog.

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.

Special Education Services/Instruction

Joy F. Xin, Chair
 Robinson Hall
 (856)256-4747
 xin@rowan.edu

The B.A. Teacher of the Handicapped program will not be enrolling new students as of spring semester 2004. A new program leading to Teacher of Disabilities Certification will be developed for the future.

B.A. Teacher of the Handicapped

The program of study for the Teacher of the Handicapped leads to a B.A. degree and certification to teach students classified as mentally retarded, emotionally disturbed, socially maladjusted, neurologically impaired, learning disabled, orthopedically handicapped, communications impaired, chronically ill, and multiply handicapped. Courses in the major provide ample opportunity for students to obtain experience in working with individuals with disabilities in classroom and agency settings.

Program Configuration:

<i>I. General Education</i>	61 s.h.
(See p. 39 for all-university requirements)	
COMMUNICATIONS	9 S.H.
1501.111 College Composition I	
1506.202 Public Speaking	
1501.112 College Composition II	
MATH/SCIENCE	10 S.H.
1701.115 Contemporary Math	
2001.100 Intro to Psychology: Brain, Mind, Behavior Lab Science (4 s.h.)	
SOCIAL/BEHAVIORAL	12 S.H.
2208.120 Introduction to Sociology	
2208.220 Sociology of Family (M/G)	
2001.104 Intro to Psychology: Personal/Emotional	
2009.209 Child Development	

COLLEGE OF EDUCATION

HISTORY/HUMANITIES/LANGUAGE	12 S.H.	0808.326	Junior Practicum II	4 s.h.
Literature Elective		0808.450	Student Teaching	12 s.h.
0821.150	History of American Education			
Elective				
Elective				
		<i>IV. Total Credits in Program</i>		<i>130 s.h.</i>

ARTS	3 S.H.
GENERAL EDUCATION ELECTIVES	15 S.H.
0701.100	Computer Literacy
0822.315	Educational Psychology
0835.103	Health and Wellness
1701.201	Structures of Math
	Science Elective

II. Special Education Major 39 s.h.

A. CORE CURRICULUM IN SPECIAL EDUCATION 30 S.H.

0808.110	Intro to Special Education I
0808.111	Intro to Special Education II
0808.102	Resources and Community Agencies
0808.230	Language and Cognition of Students with Special Needs
0830.321	Teaching Reading to Children with Special Needs
0808.307	Assessment for Instruction
0808.360	Managing the Behavior of Exceptional Learners
0808.319	Planning Instruction for Students with Special Needs
0808.320	Implementing Instruction for Exceptional Learners
0808.407	School & Family Issues

B. SPECIALIZATION COURSES 9 S.H.

0808.445	Senior Seminar Mild/Moderate Disabilities
0808.415	Educating Elementary Students with Mild/Moderate Disabilities
0808.416	Educating Secondary Students with Mild/Moderate Disabilities Severe/Profound Disabilities
0808.405	Educating Students with Severe/Profound Handicaps

III. Professional Preparation 30 s.h.

0801.101	Teaching as a Profession	1 s.h.
0821.301	Ed. Policy I	3 s.h.
0830.310	Reading in the Content Areas	3 s.h.
0808.206	Multicultural Requirement	3 s.h.
0808.325	Junior Practicum I	4 s.h.

School Nursing

Marie Cammarota, Program Advisor
 Robinson Hall
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 cammarota@rowan.edu

This program allows registered professional nurses to complete requirements for certification in School Nursing and related health teaching. There is both a baccalaureate degree program, as delineated below, and a planned certification program for those nurses who already hold a baccalaureate degree.

I. General Education 61 s.h.

(See p. 39 for all-university requirements)

Communications 9 s.h.

1501.11	College Composition I
1501.112	College Composition II
1506.202	Public Speaking

Math/Science 11 s.h.

0411.330	Microbiology
	OR
1905.102	Chemistry
0410.210	Anatomy & Physiology OR
0401.110	Human Biology
1702.100	Elementary Statistics

Social/Behavioral 12 s.h.

2208.230	Sociology of Minority Groups (M/G)
2208.220	Sociology of Family (M/G)
2209.210	Adolescent Development
2209.209	Child Development

History/Humanities/Language 12 s.h.

	Literature Elective
0821.150	History of American Education
	Writing Intensive Elective
1509.250	Intro to Ethics (LIT)
	OR
1509.392	Contemporary Moral Problems (M/G)
	Elective

Arts 3 s.h.

General Education Electives 14 s.h.

0701.100 Computer Literacy

0835.103 Health and Wellness

II. Major Requirements 44 s.h.

Transfer Nursing (21 of 30 s.h.)

0892.430 Methods and Materials of Health Teaching

0892.433 Health Assessment

0892.437 School & Community Nursing

0892.444 Practicum in School Nursing

0892.445 Student Teaching

0892.466 School Health Services

III. Electives 18 s.h.

Transfer Nursing (9 of 30 s.h.)

0821.301 Educational Policy I
OR

0821.401 Educational Policy II

IV. Total Credits in Program 123 s.h.

COLLEGE OF ENGINEERING

Dianne Dorland, Dean
Rowan Hall
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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, and 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.

Chemical Engineering

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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, air and waste management.

B.S. in Chemical Engineering

Program Requirements

I. General Education 38 s.h.

COMMUNICATIONS 3 S.H.
1501.111 College Composition I
College Composition II and Public Speaking have been approved for inclusion in the 0901.201 Sophomore Engineering Clinics.

SCIENCE AND MATHEMATICS 8 S.H.
1761.130 Calculus I
1906.105 Adv. College Chemistry I

HISTORY, HUMANITIES & LANGUAGES 6 S.H.

SOCIAL & BEHAVIORAL SCIENCES 6 S.H.
2204.102 Microeconomics

ARTS 3 S.H.

GENERAL EDUCATION ELECTIVES 12 S.H.

Required to fulfill AICHE/ABET requirements:

1701.131 Calculus II
1902.200 Physics I
0401.210 Biological Systems & Applications

II. Major Requirements 93 s.h.

0704.103 Computer Science and Programming or
0701.102 Introduction to Programming
0901.101 Freshman Engineering Clinics I
0901.102 Freshman Engineering Clinics II
0906.201 Principles Chemical Processes I

0906.302 Principles Chemical Processes II
1701.235 Math for Engineering Analysis I
1701.236 Math for Engineering Analysis II
0901.341 Fluid Mechanics I
1906.106 Adv. College Chemistry II
0901.201 Sophomore Engineering Clinics I
0901.202 Sophomore Engineering Clinics II
1907.200 Organic Chemistry I
0906.309 Process Fluid Transport
0906.311 Heat Transfer Processes
0906.312 Equilibrium Staged Operations
0906.310 Chemical Engineering Thermodynamics
0901.301 Junior Engineering Clinics I
0901.302 Junior Engineering Clinics II
0901.281 Materials Science
0906.316 Chemical Reaction Engineering
1908.400 Physical Chemistry I
0906.314 Separation Processes
0906.361 Transport Phenomena
0906.403 Unit Operations Lab I
0906.404 Unit Operations Lab II
0906.405 Process Dynamics and Control
0901.401 Senior Engineering Clinics I
0901.402 Senior Engineering Clinics II
0906.401 Chemical Process Component Design
0906.406 Chemical Plant Design
Approved Chemical Engineering Electives I and II
Approved Adv. Chemistry Elective

III. Total Credits in Program 131 s.h.

Civil Engineering

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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. Two emphasis areas are available:

the Infrastructure Emphasis and the Environmental Engineering Emphasis.

B.S. in Civil Engineering

Program Requirements

I. General Education 45 s.h.

COMMUNICATIONS 3 S.H.

1501.111 College Composition I
(College Composition II and Public Speaking have been approved for inclusion in the Sophomore Engineering Clinics)

SCIENCE AND MATHEMATICS 8 S.H.

1701.130 Calculus I (4 s.h.)
1906.105 Adv. College Chemistry I (4 s.h.)

HISTORY, HUMANITIES & LANGUAGES 6 S.H.

SOCIAL & BEHAVIORAL SCIENCES 6 S.H.
2204.102 Microeconomics (3 s.h.)

ARTS 3 S.H.

GENERAL EDUCATION ELECTIVES 19 S.H.

1701.131 Calculus II (4 s.h.)
1902.200 Physics I (4 s.h.)
0704.103 Computer Science and Programming (4 s.h.)
1906.106 Adv. College Chemistry II (4 s.h.)
1702.260 Statistics I (3 s.h.)

II. Major Requirements 96 s.h.

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.)
Civil Engineering Electives (4) (3 s.h. each)
Technical Elective (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.)

III. Other Engineering Courses 38 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 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.)
0901.281 Material Science (2 s.h.)
0901.291 Dynamics (2 s.h.)
0901.341 Fluid Mechanics I (2 s.h.)

IV. Total Credits in Program 131 s.h.

Electrical & Computer Engineering

John L. Schmalzel, Chair
Rowan Hall
856-256-5332
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-discipli-

nary experiences in design centered courses and clinics provide a unique opportunity to integrate the students' theoretical background into the solution of practical engineering problems.

B.S. in Electrical and Computer Engineering

Program Requirements

I. General Education 38 s.h.

COMMUNICATIONS 3 S.H.

1501.111 College Composition I
College Composition II and Public Speaking have been approved for inclusion in the Sophomore Engineering Clinics.

SCIENCE AND MATHEMATICS 8 S.H.

1701.130 Calculus I
1906.105 Adv. College Chemistry I

HISTORY, HUMANITIES & LANGUAGES 6 S.H.

SOCIAL & BEHAVIORAL SCIENCES 6 S.H.

2204.102 Microeconomics

ARTS 3 S.H.

GENERAL EDUCATION ELECTIVES 12 S.H.

1701.131 Calculus II
0704.103 Physics I
1902.203 Physics II

II. Major Requirements 90 s.h.

1701.235 Math for Engineering Analysis (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 II
0909.302 Engineering Electromagnetics II
0909.351 Digital Signal Processing
0909.321 Systems and Control Communications
0909.312 Electronics II: VLSI Design
0704.225 Data Structures for Engineers
0909.443 Computer Architecture II
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
856-256-5345
jchen@rowan.edu

Mechanical Engineering involves the design and building of machines and devices. This includes the conversion of energy from one form to another, the dynamics of mechanical devices, and the control systems for operation of machines. Design of thermal and mechanical systems are integrated into the curriculum.

B.S. in Mechanical Engineering

Program Requirements

I. General Education 38 s.h.

COMMUNICATIONS 3 S.H.

1501.111 College Composition I
College Composition II and Public Speaking have been approved for inclusion in the Sophomore Engineering Clinics.

COLLEGE OF ENGINEERING

SCIENCE AND MATHEMATICS	20 S.H.	0909.311	Electronics
1701.130	Calculus I	0910.403	Emerging Topics in Mechanical Engineering
1906.105	Adv. College Chemistry I		Technical Elective
1701.131	Calculus II		Approved Major Electives (4)
1902.200	Physics I		Two electives from energy systems and two from mechanical systems.
1902.201	Physics II		
HISTORY, HUMANITIES & LANGUAGES	6 S.H.		
SOCIAL & BEHAVIORAL SCIENCES	6 S.H.	<i>IV. Total Credits in Program</i>	<i>128 s.h.</i>
2204.102	Microeconomics		
ARTS	3 S.H.		

II. Major Requirements 90 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
0901.281	Material Science
0901-282	Manufacturing Processes
0901.291	Dynamics
0910.201	Vibrations
0910.311	Engineering Thermodynamics I
0910.312	Engineering Thermodynamics II
0910.241	Machine Design
0910.341	Mechanical Design and Synthesis
0909.201	Networks I
0910.342	Quality and Reliability in Design and Manufacturing
0901.341	Fluid Mechanics I
0901.313	Fluid Mechanics II
0910.343	Mechanical Systems Dynamics and Control
0906.311	Transfer Processes I - Heat

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. Consisting of the departments of Art, Music and Theatre/Dance, the College offers baccalaureate and graduate programs in the four arts disciplines. National specialized arts accreditation has been bestowed on the art, music, and theatre programs of the University. Forty-one full-time faculty engage with 540 major students to form a first-rate creative Arts Learning Community at Rowan. The College offers over 250 arts events each season to the University and to the wider community.

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 Association of Schools of Art & Design
 BA and BFA in Studio Art
 National Association of Schools of Music
 BA, BM, MA in Music Education, and MM
 National Association of Schools of Theatre
 BA, MA in Theatre

Programs Offered

The College of Fine and Performing Arts at Rowan University consists of the departments of Art, Music, Theatre/Dance, and the Maynard Ferguson Institute of Jazz Studies. It offers academic degree programs in the arts and in arts education and presents arts experiences 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 education programs at the University.

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. 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.

Departments

The College consists of the departments of Art, Music and Theatre/Dance.

- 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 pro-

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.

Major Programs

Bachelor of Arts

- Art
- Music
- Theatre Arts (with specializations in Theatre or Child Drama);

Bachelor of Fine Arts: Studio Art

Bachelor of Music

Minor Programs

- Art
- Dance
- Music
- Theatre

Teacher Certification Programs

Teacher Certification Programs in Art or Music. Students applying for teaching certification must complete the general education and other requirements specified by the appropriate departments within the College of Education. Specializations range from 39 to 83 semester hours, while the number of elective semester hours depends upon the area of specialization within the College.

Arts Majors that Coordinate with Elementary Education

- Art
- Music
- Theatre
- Child Drama

General Education

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. In this degree almost one-half of the curriculum is in general education while, for the specialized degrees, students are required to complete one-third of their work in general studies. 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.

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

Core Requirements

Core Foundation Courses in each major are specified in each degree program outline of courses within each department.

General Education Core Requirements parallel the University requirements: 60 credits in the BA degree; 45 credits in the Professional degrees.

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 of his/her best work for review by the art faculty. Photographs or slides may be substituted for large or three-dimensional work. 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

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, Computer Art, Graphic Design, Illustration, Jewelry/ Metalry, 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/MATHEMATICS	7 S.H.
SOCIAL & BEHAVIORAL SCIENCES	6 S.H.
HISTORY, HUMANITIES, LANGUAGES	6 S.H.
1509.310 Aesthetics	
ARTS (MUSIC, THEATRE OR DANCE)	3 S.H.
ELECTIVES	11 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/Metalry, Photography, Printmaking, and Sculpture.	
1009.390 Work in Progress Review	0 s.h.
1009.490 Senior Thesis/Exhibition	0 s.h.

C. ART STUDIO ELECTIVES	13.5 S.H.
D. ART HISTORY	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	

Program Total **120 s.h.**

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.

B.A. in Art**I. General Education 60 s.h.***Communications 9 s.h.*

1501.111 College Composition I

1501.112 College Composition II

1506.202 Public Speaking

*Science & Mathematics 10 s.h.**Social & Behavioral Sciences 12 s.h.**History, Humanities, Language 12 s.h.*

1509.310 Aesthetics

*Arts (Music, Theatre or Dance) 3 s.h.**General Education Electives 14 s.h.***II. Major Requirements 39 s.h.***A. Foundation Core 19.5 s.h.*

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

ART HISTORY 9 S.H.

1003.103 Art History Survey I

1003.104 Art History Survey II

1003.205 Art History Survey III

B. Studio Choices 10.5 s.h.

Select studios in consultation with advisor.

*C. 1009.401 Senior Show or Project 0 s.h.***III. Free Electives 21 s.h.****Program Total 120 s.h.****Concentration: Art Education.****Certification in the Teaching of Art (K-12)**

Jane E. Graziano, Advisor

Westby Arts Center

856-256-4520

graziano@rowan.edu

Certification in the Teaching of Art (K-12)

All teacher education programs have been revised to conform to new New Jersey State requirements for certification. In general, the art education program retains its strength in studio work plus additional experience in a variety of art media and professional courses.

Students seeking certification should apply to the Department of Secondary Education during their sophomore year. Transfer students should apply immediately after admission to the university. Information on art education certification should be directed to the coordinator of undergraduate art education.

Additional information may be found under Secondary Education/Foundations of Education.

I. General Education 60 s.h.*Communications 9 s.h.*

1501.111 College Composition I

1501.112 College Composition II

1506.202 Public Speaking

*Science & Mathematics 10 s.h.**Social & Behavioral Sciences 12 s.h.*

2001.100 Intro to Psychology: Personal, Emotional & Social Interactions

2009.209 Child Development

2009.210 Adolescent Development
Sociology Choice*History, Humanities and Language 12 s.h.*

1509.310 Aesthetics

0821.150 History of American Education
Broad-based Literature Choice*Arts 3 s.h.*

Music or Theatre/Dance Choice

General Education Electives 14 s.h.

0822.315 Educational Psychology

0835.106 Health and Wellness

II. Academic Major 40.5 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 and Techniques
- 1002.222 Studio Core Portfolio Review

B. Art History 9 s.h.

- 1003.103 Art History Survey I
- 1003.104 Art History Survey II
- 1003.205 Art History Survey III

C. Studio 12 s.h.

- 1002.220 Painting I
- 1009.240 Ceramics I
- 1002.260 Printmaking I
- 1002.240 Sculpture I

D. Senior Project (1009.401) 0 s.h.

III. Professional Education 34 s.h.

- 0801.101 Teaching as a Profession
- 0830.201 Pedagogy I (Org & Management)
- 0830.381 Pedagogy II (Tchg Rdg. Content)
- 0831.350 Pedagogy III-A (Prac-Elem Art)
- 0831.360 Pedagogy III-B (Prac-Sec Art)
- 0821.301 Ed Policy I (Decision-Making)
- 0821.401 Ed Policy II (Struc DM)
- 0803.481 Pedagogy IV: Student Teaching
- 0831.100 Theory/Analysis of Art Educ.

Program Total 134.5 s.h.

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
- 1002.200 Expressive 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 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
856-256-4500 ext 3714

Curriculum (liberal arts)	120 s.h.
<i>A. General Education</i>	<i>60 s.h.</i>
(See p. 39 for all-university requirements)	
1. COMMUNICATION	9 S.H.
1501.111 College Composition I	
1501.112 College Composition II	
1506.202 Public Speaking	
2. MATHEMATICS AND SCIENCE	10 S.H.
3. BEHAVIORAL AND SOCIAL SCIENCES	12 S.H.
4. HISTORY/HUMANITIES/LANGUAGE	12 S.H.
5. FINE AND PERFORMING ARTS	3 S.H.
6. GENERAL EDUCATION ELECTIVES	14 S.H.
<i>B. Free Electives</i>	<i>23 s.h.</i>
<i>C. Major Requirements</i>	<i>37 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 III-IV, Piano Class III-IV; Computer Technology and Music I-II	

Bachelor of Music - Music Education specialization

Kristyn L. Kuhlman, Advisor
856-256-450 ext 3720

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.

A. General Education 42-43 s.h.

1. COMMUNICATIONS 9 S.H.

1051.111 College Composition I

1501.112 College Composition II

1506.202 Public Speaking

2. SCIENCE AND MATHEMATICS 7 S.H.

Biological or Physical Lab Choice

Math Choice

3. SOCIAL & BEHAVIORAL SCIENCES 6 S.H.

2208.120 Intro to Sociology

2009.209 Child Development

4. HUMANITIES 6 S.H.

0821.150 History of American Education

Literature Choice

5. ARTS 3 S.H.

6. GENERAL EDUCATION ELECTIVES 12 S.H.

0835.103 Health and Wellness

1006.102 General Music History

Technology course Choice

Social/Behavioral Science Choice

Ensembles

B. Professional Education 30 s.h.

C. Major Requirements 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-V II1004.050

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 specialization

Thomas Wade, Advisor
856-256-4500 ext 3714

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 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 Applied. Instrument/Voice I-VIII

1004.121, 104.122, 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
Student Recitals I-VIII 1004.505
Ensembles
Electives
Voice Specialization Only
Secondary Applied Instrument I&II (piano)
1097.114, 1097.115
Language Through Vocal Repertory 1004.202,
1004.203, 1004.204
Vocal Pedagogy, Arranging, Literature 0832.218
Keyboard Specialization Only
Keyboard Literature 1006.120
Piano Pedagogy and Accompanying 0832.219

1006.215, 1006.335
Composing in Traditional and Contemporary
Styles 1004.363
Arranging 1004.361

Bachelor of Music - Composition specialization

Thomas Wade, Advisor
856-256-4500 ext 3714

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, 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,
1004.228, 1004.327, 1004.328, 1004.427,
1004.428

Chamber Music I-II 1004.309, 1004.310

Bachelor of Music - Jazz Studies specialization

Denis Diblasio, Advisor
856-256-4500 ext 3528

III. 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 1004.340

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,

Coordinate Major in Music

Lili Levinowitz, Advisor
856-256-4500 ext 3716

V. Coordinate Major in Music

(for Elementary Education Majors) Requirements
35 s.h. minimum

A. Major courses (24 s.h. minimum)

Music Theory I and II 1004.130, 1004.131,
1004.132, 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

B. Other Requirements (14 s.h. minimum)

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, 1004.241,
1004.242, 1004.243,
Piano Class III, IV 1097.200 1097.201
Choose two:
Development of Musical 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
856-256-4500 ext 3714

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, 1004.277,
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
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

Bartholomew Healy, Chair
 Bunce Hall
 856-256-4030
 healy@rowan.edu

True learning is centered in excitement, and students who love theatre will find in our programs a strong, broad-based education leading to a variety of career options. These include performance, teaching, design, and technical theatre. Theatre study at Rowan emphasizes intellectual development through the study of theatre. Our programs consist of liberal arts curricula designed to develop the self-knowledge and discipline necessary for life in an increasingly complex world.

This emphasis enables our graduates, in addition to pursuing careers in the theatrical arts, to find fulfilling careers in fields such as law, sales, management, modeling, radio/television and public relations.

A secure future depends upon a secure sense of self, and self is an instrument developed through study and experience in performance. In our changing world, college graduates may change careers several times, but the logic, literacy and discipline developed through the study of the theatrical arts are skills that last a lifetime.

Academic Programs

Preparation for a successful career in theatre or dance begins with a solid college prep high school education and extensive practical experience in theatre and dance in high school and community groups. At Rowan, you may earn a Bachelor of Arts in Theatre through the completion of 60 credits of General Education studies, 34-39 credits in the major and 21-27 credits of free electives. The free elective hours can be used to complete a minor in another field.

The Department of Theatre and Dance offers a choice of two specializations within the major: Theatre or Child Drama. Within the specialization in Theatre, there are three separate tracks: Performance, Design/Tech and Liberal Arts. Minors are offered in Theatre and Dance and concentrations in Dance and also in Theatre Design for the Art major. Elementary and secondary school teaching certification is available, but requires at least one semester of study and careful academic advisement.

A Master of Arts in Theatre is also offered. This program is for those working their way to a Ph.D. and for those in the workplace, especially teachers, wishing to upgrade their knowledge of theatrical theory and practice.

Performance Activities

A full range of theatre and dance productions supplement coursework and provide ample opportunities for students to develop performance and production skills through the creation of live theatre. All students are required to participate in one of the department's performance groups: Campus Players, Lab Theatre or Dance Extensions. The groups produce some 10 events in a year, ranging from full-scale mainstage shows to student directed and choreographed workshops. These allow students to accumulate valuable experience as performers, directors, designers and technicians.

Facilities

The Theatre/Dance Department is centered in Bunce Hall, the first building constructed on campus. The mainstage theatre and dance season is presented in Bunce Hall's 450 seat Tohill Theatre. A second series of student-produced events is presented in the small black box Studio Theatre, also located in Bunce Hall. Both performance spaces have up-to-date lighting and sound equipment. In addition, Bunce contains rehearsal space, a well-equipped costume shop and scene shop, prop and costume storage, a computer-equipped design studio, an acting studio and the department offices. Two dance studios are located in Memorial Hall. Now in its design stage, a new wing on Wilson Hall housing theatre and dance production and teaching facilities will be constructed in the near future.

Auditions and Interviews

Admission to the department requires an on-campus interview and, in many cases, an audition the semester before classes are taken. Call or write the department chairperson (856) 256-4030 or 4034 for specific information on interview or audition requirements.

Students seeking admission to the major in theatre in the Design/Tech track are not required to audition, but must be interviewed and present a portfolio or folder demonstrating their experience

and ability. Students interested in being admitted to the Performance or Liberal Arts tracks must audition, but Child Drama students need only interview.

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.

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. Some of the courses in the programs can be counted as General Education and free elective requirements and often do not require that students take coursework beyond the normal graduation requirements.

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).

B.A. in Theatre

The Rowan Bachelor of Arts in Theatre contains two specializations: Theatre and Child Drama. Either track 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 to beginning backstage artists and the liberal arts track to young directors and prospective teachers.

I. General Education 60 s.h. (See p. 39 for all-university requirements)

<i>A. Communications</i> 9 s.h.	
1501.111	College Composition I
1501.112	College Composition II
1506.202	Public Speaking

<i>B. Science and Mathematics</i> 10 s.h.	
Choice	
Lab Science and Math Choice	

<i>C. Social and Behavioral Sciences</i> 12 s.h.	
2001.100	Intro to Psychology: Personal, Emotional & Social Interactions
1506.206	Interpersonal Communication
0601.203	Mass Media and Influences or choice

<i>D. History, Humanities & Language</i> 12 s.h.	
1502.113	Readings in U.S. Literature
1502.110	Readings in British Literature
2205.100	Western Civilization to 1660
2205.101	Western Civilization since 1660

<i>E. Arts</i> 3 s.h.	
Music, Dance or Art Choice	

<i>F. General Education Electives</i> 14 s.h.	
Suggested:	

1502.250	Shakespeare I
1502.350	Shakespeare II
1502.424	American Dramatists
1502.330	Classical Literature in Translation
1105.328	Spanish American Theatre
1008.436	Dance History
1010.270	Film History and Appreciation I
1010.271	Film History and Appreciation II
1003.130	Art Appreciation
1509.120	Introduction to Philosophy
1509.310	Aesthetics
1006.102	General Music History

- 1008.311 African Influences in American Dance
 1008.146 World Dance Forms

- 1007.430 Directing I
 1007.390 Technical Supervision I
 1007.391 Technical Supervision II
 1007.460 Senior Project in Theatre

II. Specializations:

<i>Theatre</i>	39 s.h.
CORE	23 S.H
1007.105 Introduction to Acting	
1007.111 Colloquium I	
1007.112 Colloquium II	
1007.113 Colloquium III	
1007.114 Colloquium IV	
1007.201 Introduction to the Theatre	
1007.203 Costuming I	
1007.205 Costuming II	
1007.230 Stagecraft I	
1007.231 Stagecraft II	
1007.339 History of the Theatre to 1700	
1007.340 History of the Theatre from 1700 to 1956	
1007.440 Contemporary World Theatre	
TRACKS	16 S.H.
Performance	
1008.135 Elements of Dance	
1007.103 Speech for the Stage	
1007.235 Acting I	
1007.236 Acting II	
1007.430 Directing I	
1007.345 Rehearsal and Performance	
1007.460 Senior Project in Theatre Design/Tech	
1007.232 Stagecraft III	
1007.233 Stagecraft IV	
1007.310 Foundations of Theatrical Design	
1007.300 Drawing and Rendering for the Theatre	
1007.390 Technical Supervision I	
1007.391 Technical Supervision II	
1007.460 Senior Project in Theatre	
Two of the following:	
1007.350 Scene Design	
1007.353 Lighting Design	
1007.356 Costume Design	
Liberal Arts	
1008.135 Elements of Dance	
1007.235 Acting I	
1007.232 Stagecraft III	
1007.233 Stagecraft IV	

III. Free Electives 21 s.h.

IV. Total Credits in Theatre 120 s.h.

<i>Child Drama</i>	34 s.h.
CORE	13 S.H.
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	
1007.340 History of the Theatre from 1700 to 1956	
1007.440 Contemporary World Theatre	
SPECIALIZATION	21 S.H.
1007.103 Speech for the Stage OR	
1007.105 Voice and Articulation	
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 OR	
1008.135 Elements of Dance	

V. Free Electives 26 s.h.

VI. Total Credits in Child Drama 120 s.h.

Minor in Theatre

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
- 1007.104 Introduction to Acting
- 1007.230 Stage Craft I
- 1007.231 Stage Craft II
OR
- 1007.202 Costuming I
- 1007.205 Costuming II

Electives

6 semester hours from the following:

- 1007.250 Children's 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

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

Electives - Technique 6-12 s.h.

- 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
- 1008.152 Ethnic and Character Dance
- 1008.222 Dance for the Musical Stage

Electives - Theory 6-12 s.h.

- 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
- 1008.265 Dynamics of Human Movement
- 1008.126 Movement for the Actor

Dance Concentration

Melanie Stewart, Advisor
 Memorial Hall
 856-256-4031
 stewartm@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.

Active participation in the Dance Ensemble (Dance Extensions) is an academic part of this program.

- 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

- 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.

Theatre Design Concentration

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	

COLLEGE OF LIBERAL ARTS AND SCIENCES

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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, and podiatry 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

Patricia Mosto, Chair
Science Hall
856-256-4833
mosto@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. Our Department also has an early acceptance affiliation with the physical therapy program at the Medical College of Pennsylvania Hahnemann 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 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 us at www.rowan.edu/biology

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.

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
0401.105	Essentials of Biology
0420.401	Principles of Ecology
0401.210	Systems and Applications

B.S. in Biology

Students majoring in Biological Sciences 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. Beginning September 1995, for every student who enters Rowan as a Freshman, or in September 1997 for every student who enters Rowan as a Junior transfer, a course in Selected Topics in Biology will be required during his/her 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 Biological courses may require observation of, dissection of, manipulation of and experimentation with living or preserved organ-

isms. These exercises are an integral part of biology courses and provide an essential experience.

I. General Education 49 s.h.
(See p. 39 for all-university requirements)

A. Communications 9 s.h.

B. Social and Behavioral Sciences 9 s.h.

C. History, Humanities and Language 9 s.h.

D. Art 3 s.h.

E. Science and Mathematics 11 s.h.

Required:

1701.130 Calculus I

1906.100 Chemistry I

F. General Education Electives 8 s.h.

II. Major Requirements 62 s.h.

A. Common Core 32 s.h.

0401.100 Biology I

0401.101 Biology II

1906.101 Chemistry II

1907.201 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

OR

Advanced Science course

B. Biology Electives 30 s.h.

Required:

0401.440 Special Topics (Senior Seminar)

III. Free Electives 9 s.h.

IV. Program Total 120 s.h.

Program Banks

Anatomy/Physiology Bank

0407.301 Comparative Vertebrate Anatomy

0410.210 Anatomy and Physiology I

0410.212 Anatomy and Physiology II

0410.345 Human Physiology

0410.350 Physiology

0410.465 Animal Histology

0427.401 Embryology of Animals

Botany Bank

0401.200 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

0401.430 Cell Biology

0401.435 Cell Culture Technology

0410.465 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

Courses for Majors, Not Assigned to a Curricular Bank

- 0401.100 Biology I
- 0401.101 Biology II
- 0401.440 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 23-24 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, and the courses for the Minor may be taken in any order. In keeping with the policy of the Biological Science Major, any Biology grade below a C- will not count within the Minor.

- 0401.100-101 Biology I and II
- 0402.200 Introductory Botany
OR
- 0402.201 Plant Diversity
- 0422.335 Genetics
- 0401.430 Cell Biology
Biology elective, 300 level or above

Environmental Studies Concentration

Patricia Mosto, Program Advisor
Science Hall
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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:

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

Pre-Medical Concentration

Richard Meagher, Program Advisor
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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
2001.101	Psychology
Plus one of the following:	
1909.350	Quantitative Analysis
0407.301	Comparative Anatomy
0427.401	Embryology
0411.330	Microbiology

Chemistry & Biochemistry

Robert Newland, Chair
Science Hall
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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
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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 50 s.h.
(See p. 39 for all-university requirements)

<i>A. Communications</i>	9 s.h.
<i>B. Science and Math</i>	12 s.h.
1701.130	Calculus I
1701.131	Calculus II
1902.200	Physics I with Calculus
<i>C. Social and Behavioral Sciences</i>	9 s.h.
<i>D. Humanities, History, Languages</i>	9 s.h.
<i>E. Fine and Performing Arts</i>	3 s.h.
<i>F. General Education Electives</i>	8 s.h.
1902.201	Physics II with Calculus
1701.230	Calculus III

II. Major Requirements 61 s.h.

<i>A. Common Core</i>	49 s.h.
0701.102	Introduction to Programming
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*
1909.350	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	Introduction to Research I OR
1905.435	Co-op Experience in Chemistry

B. Restricted Electives 12 s.h.

10 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 12 s.h.

IV. Total Credits for Program 123 s.h.

*These courses require a grade of C or better.

Minor in Chemistry

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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
1909.350	Quantitative Analysis

And one other course that has Organic Chemistry II as a prerequisite

B.S. in Biochemistry

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Science Hall
856-256-5455
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The B.S. Degree in Biochemistry, an interdisciplinary program, is designed to prepare student's 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 50 s.h.

(See p. 39 for all-university requirements)

A. Communications 9 s.h.

B. Science and Math 11-12 s.h.

1701.130 Calculus I

1701.131 Calculus II

OR

1702.260 Statistics

1902.200 Physics I with Calculus

C. Social and Behavioral Sciences 9 s.h.

D. Humanities, History, Languages 9 s.h.

E. Arts 3 s.h.

F. General Education Electives 8 s.h.

1902.201 Physics II with Calculus

0401.100 Biology I

II. Major Requirements 60 s.h.

A. Common Core 43 s.h.

0701.102 Introduction to Programming

OR

0701.200 Computing Environments

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
1909.350	Quantitative Analysis
1908.305	Biophysical Chemistry
0401.102	Biology II
0414.348	Biochemistry I (with lab)
1907.408	Advanced Biochemistry
1905.440	Introduction to 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 10 s.h.

Chosen with the help of advisor and with consideration for future educational and career plans.

IV. Total Credits for Program 123 s.h.

B.S. in Physical Sciences (with Physics & Astronomy)

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See the program description listed in the Department of Physics and Astronomy

Computer Science

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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 2000 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

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. Majors 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 Mathematics, Computer Science and Programming, Computer Organization, and Data Structures and Algorithms, whether they are taken locally or are transferred.

Course Requirements for Major:

I. General Education 50 s.h.

In each category other than category F (General Education Electives), only those courses that are listed in the General Education Guide can be used. Any course that is offered within the College of Liberal Arts & Sciences, General Education Guide and Health and Wellness can be used for Category F.

A. ARTS 3 S.H.

B. COMMUNICATIONS 9 S.H.

1501.111 College Composition I is required

1501.112 College Composition II is required

1506.202 Public Speaking is required.

C. HISTORY, HUMANITIES, AND LANGUAGE 9 S.H.

A course labeled as General Education Literature is required.

D. SOCIAL AND BEHAVIORAL SCIENCES 9 S.H.

4901.265 Computers and Society is required.
OR

4901.266 Computer and Society WI

E. SCIENCE AND MATHEMATICS 12 S.H.

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. GENERAL EDUCATION ELECTIVES 8 S.H.

II. Free Electives **8 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 **63 s.h.**

A. Required Courses 54 s.h.

1701.130 Calculus I 4 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

0701.205 Computer Laboratory Techniques

0707.210 Foundations of Computer Science

0707.321 Principles of Software Engineering

0704.315 Programming Languages

0706.310 Principles of Digital Computers 4 s.h.

0707.340 Design and Analysis of Algorithms

0704.390 Operating Systems

0704.400 Senior Project

B. Restricted Electives 9 s.h.

0704.320 Web Programming

0704.380 Object Oriented Design

0704.392 System Programming and Operating System Internals

0704.401 Compiler Design

0704.430 Database Systems: Theory and Programming

0706.410 Data Communications and Networking

0706.412 Advanced Computer Architecture

0706.415 Wireless Networks, Protocols and Applications

0707.310 Robotics

0707.322 Software Engineering Practicum

0707.360 Computer Graphics

0701.395 Topics in Computer Science

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
- 0704.392 System Programming and Operating System Internals

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 lists specify the courses making up each specialization. To obtain one of these spe-

cializations, a student must take four or more courses from the specialization's list.

Software Engineering

- 0704.315 Programming Languages
- 0707.340 Design and Analysis of Algorithms
- 0707.321 Principles of Software Engineering
- 0707.322 Software Engineering Practicum
- 0704.380 Object Oriented Design

Networking and Operating Systems

- 0704.390 Operating Systems
- 0706.410 Data Communications and Networking
- 0704.392 System Programming and Operating System Internals
- 0706.412 Advanced Computer Architecture
- 0706.310 Principles of Digital Computers

Information Technology

- 0701.205 Computer Laboratory Techniques
- 0704.305 Web Programming
- 0707.321 Principles Software Engineering
- 0704.390 Operating Systems
- 0706.410 Data Communications and Networking

Programming Languages and Compilers

- 0704.315 Programming Languages
- 0704.380 Object Oriented Design
- 0707.210 Foundations of Computer Science
- 0704.410 Compiler Design
- 0707.321 Principles Software Engineering

Artificial Intelligence

- 1702.360 Introduction to Probability and Statistics I
- 0707.210 Foundations of Computer Science
- 1509.130 Introduction to Symbolic Logic
- 0707.450 Artificial Intelligence
- 0704.315 Programming Languages
- 0707.310; Robotics: Software and Mobility or
- 0707.460 Computer Vision

Numerical and Scientific Computation

- 0707.340 Design and Analysis of Algorithms
- 1701.210 Linear Algebra
- 1701.231 Ordinary Differential Equations
- 1701.332 Numerical Analysis
- 1701.230 Calculus III

Economics

Habib Jam, Chair
 Bunce Hall
 856-256-4060
 jam@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 60 s.h.

(See p. 39 of this catalog for all-university requirements)

A. COMMUNICATIONS 9 S.H.

B. SCIENCE AND MATHEMATICS 10 S.H.

Required:

An introductory statistics course

Lab Science choice

C. SOCIAL AND BEHAVIORAL SCIENCES 12 S.H.

D. HISTORY/HUMANITIES/LANGUAGE 12 S.H.

E. ARTS 3 S.H.

F. GENERAL EDUCATION ELECTIVES 14 S.H.

II. Major in Economics 36 s.h.

REQUIRED COURSES 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)

ECONOMIC ELECTIVES 18 S.H.

One multi-cultural/global course is required:

2204.307 Economic Development M/G OR

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

2204.390 Risk and Insurance

2204.395 Economics of Personal Financial Planning

2204.410 Internship in Economics

2204.541 Managerial Economics (senior standing required)

III. Free Electives 24 s.h.

IV. Total Credits in Program 120 s.h.

Minor in Economics

Minor program 21 s.h.

Required courses:

2204.101 Introduction to Economics (Macro)

2204.102 Introduction to Economics (Micro)

Economic Electives 15 s.h.

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

Nathan Carb, Chair
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 carb@rowan.edu

The English curriculum includes a study of English and American 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, journalism, teaching, and other professions in which the use of the language is important.

B.A. in English

I. General Education **61 s.h.** (See p. 39 for all-university requirements)

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

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

C. Social & Behavioral Sciences **12 s.h.**

D. History/Humanities/Language **12 s.h.**

2208.100 Western Civilization to 1660

2205.101 Western Civilization Since 1660

E. Arts **3 s.h.**

1003.131 History of American Art
 OR

1003.130 Art Appreciation

1006.102 General Music History
 OR

1006.109 Music Appreciation

F. General Education Electives **15 s.h.**

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 Literature of the United States:
 Beginnings to Realism

1502.214 Literature of the United States:
 Realism to the Present

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

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.

Literary Studies

Surveys

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

1502.215 US Literature Since Realism

1502.110 Readings in British Literature

1502.250 Shakespeare I

1502.393 Seminar I

200-level elective

300/400-level elective

Environmental Studies

Patricia Mosto, Coordinator

Science Hall

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Program Description

The Bachelor of Arts in Environmental Studies at Rowan University is an interdepartmental and interdisciplinary program developed to respond to the growing need for well-rounded trained environmental specialists in industry, government, and education. Environmental problems are priority issues of national and global concern. Basic coursework in biology, ethics, chemistry, geology and the social sciences, as well as the application of basic science disciplines and research methodology to environmental issues are the strengths of the program. The program emphasizes the inter-

disciplinary aspects of the environment, providing graduates with the necessary background for environmental studies/science positions in industry, government, and education, as well as placement as strong candidates for a graduate program 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 60 credits of General Education courses, 44 credits in the major and 16 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 are expected to be completed in four years.

Environmental Studies

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Environmental Studies majors will be required to fulfill General Education requirements as they are initiated by Rowan University in accordance with the strategic plan.

I. General Education requirements (60 credits)

A. Communication (9 credits)

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

B. Math and Science (11 credits)

- 1703.260 Statistics I
- 1902.150 Physics of Everyday Life
- 1905.102 Chemistry of Everyday Life

C. Social & Behavioral Sciences (12 credits)

- 2202.202 Cultural Anthropology
- OR
- 2202.201 Physical Anthropology
- 2208.120 Intro to Sociology
- OR
- 2208.221 Social Problems
- 2204.101 Macroeconomics
- 2206.102 Cultural Geography (MG)

D. History, Humanities and Language (12 credits)

- 1509.369 Philosophy of Science (WI)
- Foreign Language (*)
- Foreign Language (*)

E. Arts (3 credits)

F. General Electives (13 credits)

- 1905.301 Chemistry of the Environment
- (*) both have to be in the same language

II. Major Requirements (44 credits)

A. Common Core (25 credits)

- 4994.101 Environmental Studies - Physical Perspectives
- 4994.102 Environmental Studies - Social Perspectives
- 4994.301 Environmental Ethics
- 4994.121 Field Methods and Research Design for Environmental Studies
- 2208.400 Environmental Policy and Society
- 2206.308 Geographic Information Systems (GIS) I
- Internship – one year
- OR
- 4994.401 Senior Seminar in Environmental Studies I
- AND
- 4494.402 Senior Seminar in Environmental Studies II

B. Electives (19 credits), Natural Science Track

- 1. REQUIRED (8 CREDITS)
- 0401.112 General Biology: Environmental Focus
- 0401.330 Environmental Science
- 2. SUGGESTED (11 CREDITS)
- 1913.101 Meteorology
- 2206.305 Climatology
- 2206.309 Geographic Information Systems (GIS) II
- 2206.325 Geomorphology
- 2206.110 Physical Geography
- 2206.103 Geology I
- 2206.104 Geology II
- 0420.100 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 (*)

(*) All those courses require Biology I and II. Students can substitute Biology I for General Biology: Environmental Focus, and use Biology II as a General elective

C. Electives, Social Science Track

- 1. REQUIRED (6 CREDITS)
 - 0420.100 Natural Resources
- 2. SUGGESTED (13 CREDITS)
 - 2204.210 Environmental Economics
 - 2205.205 Environmental Psychology
 - 2206.309 Geographic Information Systems (GIS) II
 - 2206.304 Population Geography
 - 2202.321 Cultural Ecology
 - 2215.322 Sociology of Populations
 - 2208.320 Urban Sociology
 - Land Use & Resource Development
 - 2206.302 Urban Geography
 - 2206.355 Metropolitan and Regional Planning
- 3. FREE ELECTIVES (16 CREDITS)

Total Credits **120**

Foreign Languages and Literatures

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 Bunce Hall
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 spencers@rowan.edu

The department offers a major in Spanish as well as a Coordinate major in Spanish for education majors. 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.

I. General Education Requirements 60 s.h.

(See p. 39 for all-university requirements)

- A. Communications* 9 s.h.
- B. Science and Mathematics* 10 s.h.
- C. History, Humanities, Languages* 12 s.h.
 General Education LIT course
 Two Foreign Language courses other than Spanish. Both courses must be in the same language.
- D. Social and Behavioral Sciences* 12 s.h.
- E. Arts* 3 s.h.
- F. General Education Electives* 14 s.h.

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 **21 s.h.**

IV. Total Credits in Program **120 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
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 spencers@rowan.edu

The French Minor is an intensive program of study which offers courses in French language, civilization, culture and literature. It also provides a general background for further study in French or for future professional pursuits in a wide variety of fields such as international business, education, social, administrative and governmental work. 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

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 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

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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. Each program represents a stimulating challenge to the students

and faculty involved. 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 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. For students interested in pursuing studies beyond the introductory level, the department also offers a minor in anthropology.

Students should note that the very nature of the two disciplines housed in the department implies a concern with multi-cultural and global education. Consequently, many of our courses satisfy the multi-cultural/global education requirement that all students must fulfill. 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
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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 60 s.h.

(See p. 39 for all-university requirements)

- A. Communications* 9 s.h.
- B. Science and Mathematics* 10 s.h.
- C. Social & Behavioral Sciences* 12 s.h.
- D. History/Humanities/Languages* 12 s.h.
- E. Arts* 3 s.h.
- F. General Education Electives* 14 s.h.

II. Major Requirements 37 s.h.

- A. Common Core: Required 15 s.h.*
- 2206.110 Investigations in Physical Geography
- 2206.102 Cultural Geography
- 2206.111 World Regional Geography (M/G)
- 2206.193 Intro to the Mapping 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 Introduction to Geographic Information Systems
- 2206.415 Advanced Geographic Information Systems

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 Intro to Geographical Information Systems
- 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
2206.320 Computer Cartography
2206.350 Quantitative Methods in Geography
2206.360 Intro to Geographical Information Systems
- 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 Intro to Geographical Information Systems
2206.315 Field Studies
OR
2206.320 Computer Cartography

- 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 24 s.h.

IV. Total Credits in Program 120 s.h.

Minor in Geography (General Geography, Regional Geography, Geographic Techniques)

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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 6 s.h.*
2206.101 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 6 s.h.

- 2206.101 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 9 s.h.

- 2206.101 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 Intro Geographic Information Systems
- 2206.415 Advanced Geographic Information Systems

Minor in Anthropology

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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
- 2203.203 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. Interested students may elect to take more courses than the minimum required by the minor.

Certificate and Concentration in Cartography and Geographical Information Systems

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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 expert-

ise 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:

- 0701.300 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 Intro to the Mapping 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
- 2206.355 Metropolitan & Regional Planning
- 2206.360 Intro to GIS
- 2206.415 Advanced GIS

History

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The history program seeks to achieve both breadth and a degree of specialization. Majors are required to select courses from three broad areas of history: United States, European and an area outside Euro America called "global." Students are urged to consult a history advisor early in their academic program in order to build a logical pro-

gram leading to their goal, be it graduate school, professional school, or post-baccalaureate employment. Twelve semester hours of a foreign language are strongly recommended for students considering graduate study.

Students considering a major in history are urged to consult the department chairperson at an early date for further clarification. Students are encouraged to earn up to 15 credits in a semester abroad program sponsored by the University.

Portfolio

All history majors must also 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 will 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. Periodic Literature Review
10. Peer Assessment (Your evaluation of other students written work)
11. Written work selected from any other discipline (any upper level social sciences or humanities course).
12. Historical Fiction
13. Video
14. Research Proposal

15. Research Paper

16. Internet Analysis

Seminar Paper Required for all history majors

Students should keep a file of all materials on formatted 3.5 disks.

Portfolio reviews will take place semi-annually as a part of academic advisement. Prior to graduation, portfolios will be reviewed by each student's advisor and the professor who directed his/her senior thesis.

The History Department will not, under any circumstances, write a recommendation for any student who has not maintained his/her portfolio.

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. 39 for all-university requirements)

A. Communications 9 s.h.

B. Science and Mathematics 10 s.h.

C. Social and Behavioral Sciences 12 s.h.

D. History/Humanities/Languages 12 s.h.
1502.116 Readings in World Literature

E. Arts 3 s.h.
Art (1003.130) or Music (1006.109) Appreciation

F. General Education Electives 14 s.h.

II. Major Requirements 36 s.h.

A. Required 18 s.h.

LOWER LEVEL COURSES

2205.100 Western Civilization to 1660

2205.120 World History Since 1500

2205.150 U.S. to 1865

2205.299 Historical Methods

One 200 Level Elective

One 200 Level Global History Course

UPPER LEVEL COURSES

Any 4 Upper Level 300 or 400 courses

One Upper Level Global History Course

2205.492 Seminar (Seniors)

B. History Electives 18 s.h.

These electives shall include a minimum of 6 hours in non-Western History, 12 hours in the 300-400 level. Majors must have a 2.5 GPA in history courses to qualify for graduation.

III. Free Electives 24 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 required for the minor are currently offered within the College of Liberal Arts and Science.

Law and Justice Studies

Allan Jiao, Chair
Wilson Hall
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The Law and Justice Studies program represents an interdisciplinary approach to the study of crime and the functioning 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 throughout the student's departmental program. An internship in an appropriate criminal justice or related agency of the field is required in order to provide students with experience, making their classwork more meaningful.

B.A. in Law and Justice Studies

Students are required to earn a C- or better in all Law and Justice 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 major. A maximum of 66 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 60 s.h.

General Education includes a minimum of 46 semester hours of credit distributed in the following manner. Please see p. 39 of this catalog for all-university requirements.

A. Communications 9 s.h.

1501.111 College Composition I

1501.112 College Composition II

1506.202 Public Speaking

B. Math and Science 10 s.h.

Required:

One lab science and one math course

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

Required:

1509.110 The Logic of Everyday Reasoning
and one general education literature course.

D. Social and Behavioral Sciences 12 s.h.

Required:

2207.110 American Government

2208.221 Social Problems

2001.110 Intro to Psychology: Personal,
Emotional & Social Interactions

E. Arts 3 s.h.

Additionally, students are required to complete the following:

A. General Education Electives 14 s.h.

B. Outside Free Electives 21 s.h.

NOTE: It is strongly recommended that the student consult a faculty advisor for assistance in making these choices.

II. Major Requirements 39 s.h.

Students must take a minimum of 39 semester hours, including 30 semester hours of core course requirements, 6 semester hours in one of the four substantive banks (i.e., police, law, corrections, social justice), and 3 semester hours of free electives within the major.

Required Core Courses 30 s.h.

- 2105.105 American Police
- 2105.110 Intro Courts
- 2105.115 Intro Corrections
- 2105.255 Criminal Law
- 2105.250 Scholarship 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 in one Bank

- 2105.315 Criminal Justice and Social Conflict
- 2105.330 Problems of World Justice
- 2105.346 Women, Crime and Criminal Justice
- 2105.367 Theories of Justice
- 2105.379 Political Prisoner

Additional Law & Justice Offerings

- 2105.210 Restorative Justice
- 2105.220 Victimology
- 2105.322 Drugs and Crime in America
- 2105.356 Criminal Justice Internship II
- 2105.361 Intro to Juvenile Justice
- 2105.392 Criminal Justice Administration
- 2105.415 Selected Topics in Criminal Justice

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 course-work may be substituted, where appropriate.

Police Studies Bank

- 2105.120 Intro to Security
- 2105.285 Criminal Investigation
- 2105.290 Forensic Law
- 2105.335 Police Procedure and the Supreme Court
- 2105.320 Civil Aspects of Law Enforcement

Courts/Law Bank

- 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
- 2105.324 Sentencing and the Rights of the Convicted

Corrections Bank

- 2105.276 Parole, Probation and Community Corrections
- 2105.324 Sentencing and the Rights of the Convicted
- 2105.337 Treatment of the Offender
- 2105.342 Counseling and Guidance of the Offender
- 2105.395 Incarceration Experience

Social Justice Bank

- 2105.205 Minorities, Crime, and Criminal Justice
- 2105.274 Criminal Justice and Community Relations

Minor in Law and Justice Studies

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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

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
- 2105.311 Police Procedure and the Supreme Court
- 2105.312 Trial Procedure and the Supreme Court
- 2105.467 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
- 2105.345 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 students' choice to be taken from other course offerings of the department.

Liberal Studies: American Studies

Dianne Ashton, Coordinator
 Bunce Hall
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The American Studies curriculum is a guided interdisciplinary program that combines structure with choice. The Introduction to American Studies 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.

Liberal Studies: American Studies

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.

Elementary Education Majors must have History of American Education.

I. General Education**60 s.h.**

Liberal Studies majors will be required to fulfill all General Education requirements as they are initiated by Rowan University in accordance with the University's Strategic Plan. (See p. 39 for all-university requirements.)

The following General Education program is required in this track:

A. Communications/Speech 9 s.h.
 1501.111 College Composition I
 1501.112 College Composition II
 1506.202 Public Speaking

B. Math/Science 10 s.h.
 One Lab Science
 1701.115 Contemporary Math or
 1701.150 Discrete Math or
 1701.122 Pre-Calculus
 One Free Elective (1701.130
 Calculus I recommended)

Elementary Education Majors: please consult
 State Certification requirements (15-16 s.h.) one
 physical science, one life science and two math
 courses.

C. Social/Behavioral Sciences 12 s.h.
 2206.201 Geography of U.S./Canada
 2208.120 Intro to Sociology
 OR
 2208.221 Social Problems
 2207.110 American Government
 0601.203 Mass Media & Their Influences
 Elementary Education Majors must also take
 Child Development.

D. Humanities 12 s.h.
 Required courses:
 2205.150 U.S. History to 1865
 2205.151 U.S. History Since 1865
 1510.210 Religion in America OR
 2205.268 African American History I
 OR
 2205.269 African American History II
 1502.113 Readings in U.S. Literature

E. Arts 3 s.h.
 Required:
 1003.131 History of American Art

F. General Education Electives 14 s.h.

II. Major Courses 36 s.h.

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.

A. Core Choices 15 s.h.
 6 credits from:
 2204.205 American Economic History
 1509.325 American Philosophy
 2207.400 American Political Thought
 2205.280 History of New Jersey
 2205.322 Civil War and Reconstruction
 2205.413 Urban History of the U.S.
 2205.324 Twentieth Century U.S.
 2205.325 U.S. Labor History
 2205.374 America from 1900-1940
 2205.375 America Since 1945
 2205.272 Issues in American History
 2205.412 Intellectual History of U.S.
 OR
 2205.410 Cultural History of U.S.
 2205.337 American Military History
 2205.430 Colonial North America
 2205.280 History of New Jersey
 2205.322 Civil War and Reconstruction
 2205.413 Urban History of U.S.
 2205.324 Twentieth Century U.S.
 2205.325 U.S. Labor History
 2205.374 America from 1900-1940
 2205.375 America Since 1945
 2205.396 History of the Vietnam War
 2205.272 Issues in American History
 2205.301 History of the Revolution and Early
 Republic
 2205.303 History of the American West
 2205.321 U.S. History of 1820-1861
 2205.335 History of world War II
 2205.433 Gilded Age and Progressive Era
 1877-1914
 2205.338 America from War to War
 3 credits from:
 2207.310 American Constitutional Law
 2207.340 Civil Rights & Civil Liberties
 2207.232 Current Issues in American Politics
 2208.341 Classical Sociological Theory
 2208.341 Sociological Theory
 2105.312 Supreme Court
 2105.322 Drugs/Crime in America
 6 credits from:
 1502.214 U.S. Literature to Realism
 1502.215 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
- 1502.322 Literature of the American Renaissance
- 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 grouping:

GROUP 1.

- 2205.419 Women in Western Civilization
- 2001.330 Psychology of Women
- 2205.422 Women in American History
- 0601.202 Communication About Women
- 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
- 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 the following:

- 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 24 s.h.

Any course listed in the student guide may also be used as an Elective. No course can fulfill more than one requirement.

IV. Total Credits in Program 120 s.h.

Liberal Studies: Math/Science

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Eric Milou, Advisor
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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. 39 for detail)

Liberal Studies: Math/Science

I. General Education 61 s.h.

Elementary Education 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 12 s.h.

1509.369 Philosophy of Science (WI)
1509.110 Logic of Everyday Reasoning

D. Social and Behavioral Sciences 12 s.h.

E. Arts 3 s.h.

F. General Education Electives 14 s.h.

0701.100 Computer Literacy or Computer Competency Exam

II. Major Requirements 36-37 s.h.

A. Lower-Level Courses 19-20 s.h.

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 OR
1911.221 Solar System

B. Upper-Level Courses 17 s.h.

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

III. Free Electives 22-23 s.h.

Required: Pre-Calculus if needed as a prerequisite for Statistics I and Discrete Math.

IV. Total Credits in Program 120 s.h.

Mathematics

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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 mathematics education. 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 supports the Master of Arts in Subject Matter Teaching: Mathematics Education, as well as offering a Master of Arts degree in Mathematics.

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 is located in Robinson Hall which houses several microcomputer labs and classrooms.

The Department sponsors the Mathematics Club, Mathematics Contests, Co-op and Internship Programs and a Visiting Lecture Series.

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, foreign language, 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 maintain a 2.5 GPA with no grade lower than a C- in the required and restricted elective courses needed for graduation.

1. General Education 61 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 11 s.h.

- 1902.200 Physics I (with calculus)
- 1902.201 Physics II (with calculus)
- 0701.104 Intro to Scientific Programming

C. Social and Behavioral Sciences 12 s.h.

D. History, Humanities, Languages 12 s.h.

- Foreign Language I & II (unless waived)
- 1509.130 Intro to Symbolic Logic

E. Arts 3 s.h.

F. General Education Electives 14 s.h.

2. Free Electives 20 s.h.

3. Major Courses 39 s.h.

A. Required Courses 30 s.h.

- 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 (Senior Standing)

B. Restricted Electives 9 s.h.

Note: College Geometry is required for mathematics majors seeking certification as secondary education teachers.

- 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

4. Total Credits in Program 120 s.h.

B.S. in Mathematics

The B.S. in Mathematics consists of 121 semester hours and follows the B.S. Degree model for General Education. The major requires students to take courses in logic, physics, communications, foreign language, 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 maintain a 2.5 GPA with no grade lower than a C- in all mathematical and science courses (including computer science) for graduation.

Course Requirements

This major consists of 121 semester hours and follows the Bachelor of Science degree model. Unless noted, all courses are 3 s.h.

See p. 39 for all-university requirements.

1. General Education 49 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. General Education 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.

A. Communications 9 s.h.

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

B. Science and Mathematics 11 s.h.

- Physics I and II (with calculus) (may NOT be taken P/NC)
- 0701.104 Intro to Scientific Programming

C. Social and Behavioral Sciences 9 s.h.

D. History, Humanities, Languages 9 s.h.

- Foreign Language
- 1509.130 Intro to Symbolic Logic (may NOT be taken P/NC)

E. Arts 3 s.h.

F. General Education Electives 8 s.h.

One course must be Multicultural/Global (M/G) and one must be designated Literature (LIT)

2. Free Electives 7 s.h.

3. Major Courses 64 s.h.

A. Required Courses 53 s.h.

- 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 (Senior Standing)

- 1702.360 Probability & Statistics I
- 1902.300 Modern Physics (4 s.h.)

B. Restricted Electives 12 s.h.

- 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

4. Total Credits in Program 121 s.h.

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 applied or theoretical coursework depends on the student's goals and should be decided in consultation with the department chairperson or the mathematics advisement coordinator.

NOTE: A 2.0 GPA is required in the Minor courses. At least six credits must be taken at Rowan University. Students must select either Track 1 or Track 2.

Track 1*1. The required core of 15 semester hours:*

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

*2. Choose two courses (6 s.h.) from one of the two following options:***APPLIED MATHEMATICS OPTION:**

1702.360	Introduction to Probability and Statistics I
1702.361	Introduction to Probability and Statistics II
1701.231	Ordinary Differential Equations
1701.386	Intro to Partial Differential Equations
1701.332	Introduction to Numerical Analysis
1703.400	Applications of Mathematics
1703.411	Deterministic Models in Operations Research
1703.412	Stochastic Models in Operations Research

THEORETICAL MATHEMATICS OPTION:

1701.330	Introduction to Real Analysis I
1701.331	Introduction to Real Analysis II
1701.340	Modern Algebra I
1701.341	Modern Algebra II
1701.310	College Geometry (4 s.h.)
1701.352	Theory of Numbers
1701.430	Intro to Complex Analysis

Track 2 (Engineering)*1. The required core of 19 semester hours:*

1701.130	Calculus I (4 s.h.)
1701.131	Calculus II (4 s.h.)
1701.241	Math for Engineering Analysis I (4 s.h.)
1701.242	Math for Engineering Analysis II (4 s.h.)
1701.210	Linear Algebra

2. Choose one course (3 s.h.) from:

1702.360	Probability and Statistics I
1702.361	Probability and Statistics II
1701.332	Intro to Numerical Analysis
1701.386	Intro to Partial Differential Equations
1703.400	Applications of Mathematics

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 semester hours

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
1902.425	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, nine semester hours:

1703.260	Statistics I
	OR
2007.311	Statistical and Research Methods in Psychology I
1702.261	Statistics II OR
2007.312	Statistical and Research Methods in Psychology II
1702.371	Statistical Design of Experiments I

Electives, nine semester hours:

1702.260	Probability and Statistics I
1702.261	Probability and Statistics II
1702.372	Statistical Design of Experiments II
0509.374	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) 256-4075
 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.

Philosophy Minor 21 s.h.

Required Courses 15 s.h.

- 1509.120 Introduction to Philosophy
- 1509.110 Logic of Everyday Reasoning
OR
- 1509.130 Introduction to Symbolic Logic
- 1509.220 Survey of Western Philosophy
- 1509.226 Philosophy of Mind
OR
- 1509.240 Philosophy and Society
OR
- 1509.332 Business Ethics
OR
- 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
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 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 & Astronomy

Eduardo Flores, Chair
 Science Hall
 856-256-4856
 flores@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
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 knoesel@rowan.edu

The B.S. program in Physics prepares students for graduate school in physics and for careers in industry, government or teaching. Laboratories are equipped with modern computers, computer-controlled instrumentation and other state-of-the-art equipment, for experimental work in optics/laser and materials science. 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 49 s.h.

(See p. 39 for all-university requirements)

A. *Communications* 9 s.h.

B. *Science and Math* 11 s.h.

- 0701.102 Intro to Programming
OR
0704.103 Computer Science and Programming
1906.100 Chemistry I
1906.101 Chemistry II

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

D. *Humanities, History, Languages* 9 s.h.

- 1509.369 Philosophy of Science
OR
alternate course approved by
advisor

E. *Arts* 3 s.h.

F. *General Education Electives* 8 s.h.

II. Major Requirements

A. *Collateral Required Courses* 15 s.h.

- 1701.130 Calculus I
1701.131 Calculus II
1701.230 Calculus III
1701.231 Differential Equations
OR
Computer Science programming lan
guage course

B. *Physics Required Courses* 31 s.h.

- 1902.200 Physics I (with calc)
1902.201 Physics II (with calc)
1902.300 Modern Physics
1902.325 Mathematical 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.)

D. *Restricted Electives* 6-8 s.h.

(Choose 2-3 courses. A maximum of 3 s.h. of Physics Research can be credited toward r istricted elective hours.)
Any course offered by Physics and Astronomy (permission of advisor)
Mathematics course (permission of advisor)
Chemistry course (permission of advisor)
Computer Science course (permission of a dvisor)
Biology course (permission of advisor)

III. **Free Electives** 11 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.

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

Ernst Knoesel, Advisor
Science Hall
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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 in grades 7-12. This program also provides excellent preparation for careers in science and science-based graduate work as provided in medical, dental, veterinary and optometry schools. The general

sciences specialization follows the NCATE/NSTA requirements for elementary or middle school science teachers.

I. General Education 49 s.h.

(See p. 39 for all-university requirements)

A. Communications 9 s.h.

B. Science & Math 11 s.h.

1701.130 Calculus I

0701.102 Intro to Programming

0401.100 Biology I

C. Social & Behavioral Sciences 9 s.h.

D. Humanities, History, Languages 9 s.h.

1509.369 Philosophy of Science

OR

Other approved by advisor

E. Arts 3 s.h.

F. General Education Electives 8 s.h.

II. Major Requirements 47-49 s.h.

A. Common Core 31-32 s.h.

1906.100 Chemistry I
OR

1906.105 Advanced Chemistry I

1906.101 Chemistry II OR

1906.106 Advanced Chemistry II

1902.200 Physics I (with calc)*

1911.201 Physics II (with calc)*

1907.200 Organic Chemistry

1909.350 Quantitative Analysis

1911.215 Astronomy & Astrophysics

B. Specialization (Choose Chemistry or General Science)

CHEMISTRY 16-17 S.H.

1907.201 Organic Chemistry II

1908.400 Physical Chemistry I

1908.402 Physical Chemistry Lab I

0414.348 Introduction to Biochemistry
Chemistry Elective

GENERAL SCIENCE 16-20 S.H.

1902.300 Physics III

Another 300-level Physics course

An approved course from astronomy, meteorology, or oceanography

An approved course from geology, physical geography or biology

An additional 300+ Physics or Chemistry elective

III. Free Electives 24 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

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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 4

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 cred-

its 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

I. General Education 60 s.h.

(See p. 39 for all-university requirements. Substitutions for the following courses may NOT be made without an advisors approval.)

A. Communications 9 s.h.

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

B. Social and Behavioral Sciences 12 s.h.

- 2204.101 Intro to Macroeconomics
- 2204.102 Intro to Microeconomics
- 2206.111 World Regional Geography
Choice

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

- 2205.100 Western Civ I
OR
- 2205.150 U.S. History I
- 2205.101 Western Civ II
OR
- 2205.151 U.S. History II
- 1509.110 Logic of Everyday Reasoning
OR
- 1509.130 Symbolic Logic
- A Masterpieces or Readings Lit Course

D. Arts 3 s.h.

- 1006.102 General Music
OR
- 1003.103 History of Art

E. Science and Math 10 s.h.

- 1702.100 Elementary Statistics
OR
- 1702.260 Statistics I
- Laboratory Science
Choice

F. General Education Electives 14 s.h.

These electives must be chosen from 300- or 400-level courses in the College of Liberal Arts and Sciences and/or from courses listed in the General Education Guide.

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 In-depth 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)

IV. Free electives 21 s.h.

V. Total Credits for Program 120 s.h.

Minor in Political Science

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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

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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, available at the Office of Career and Academic Planning. 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 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

I. General Education	61 s.h.
General education courses must be selected from the university-approved General Education course list (See p. 39 for all-university requirements.).	
<i>Communications (written/spoken)</i>	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.
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
 OR

0401.113 General Biology: Human Focus
 (All students must take either Biology I or General Biology: Human Focus or Physical Anthropology)

Social and Behavioral Sciences 12 s.h.
 Physical Anthropology
 OR

Cultural Anthropology or Anthropological Perspectives of Physical Growth

History, Humanities & Language 12 s.h.
 General Education Literature course

1509.120 Intro to Philosophy
 OR

1509.368 Philosophy of Science
 OR

1509.226 Philosophy of Mind

Arts 3 s.h.

General Education Electives 15 s.h.

II. Major Program 38 s.h.

A. Foundational Courses 12 s.h.

2001.100 Intro to Psychology: Personal, Emotional, and Social Interactions

2001.104 Intro to Psychology: Brain, Mind, and Behavior

207.210 Statistics & Research Meth. in Psychology

B. Core Courses 17 s.h.

0822.320 Learning and Behaviorism
 OR

2001.327 Cognitive Processes

2005.206 Social Psychology

2010.315 Physiological Psychology
 OR

2001.326 Psychology of 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 Individual 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

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.

Psychobiology Program

The department offers a Psychobiology Program leading to a BA in Psychology. This program prepares students for graduate work in physiological

psychology, comparative psychology, ethology and other biologically oriented behavioral sciences.

Students may obtain procedures for entrance into the program from their academic advisor. Students must be accepted into the major in order to complete the Psychobiology program with a B.A. in Psychology.

State of New Jersey Certified Alcoholism & Drug Counselor (CADC)

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

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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 fami-

lies 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
2009.305	Developmental Psychopathology
2001.422	Field Experience

Students are encouraged to take the courses in the order in which they are listed.

Sociology

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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.

We offer a coordinate major for students who also have a major in elementary education. Students have to meet the same requirements in sociology as other majors.

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) completion of 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.

B.A. in Sociology

I. General Education 60 s.h.

Because understanding of group behavior is based on sociological principles interwoven with knowledge from various other areas of social inquiry, sociology majors must complete as general education the following:

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 Into 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 12 s.h.

- History (Choose 2)
- Literature (Choice)
- Religion or Philosophy (Choice)

E. Arts 3 s.h.

F. General Education Electives 14 s.h.

Hours must be selected from lower-level or upper-level courses offered within the College of Liberal Arts & Sciences, courses in General Education banks, or Health and Wellness.

The Department recommends that students take at least one additional course from each of the following banks: Math/Science, History/Humanities/Language, and Social and Behavioral Science. The additional five or six s.h. can be the choice of the student in consultation with his/her advisor.

In addition to the above departmental requirements, ALL students must fulfill university-prescribed general education requirements. Please see the General Education information listed on page 39.

The Sociology faculty, however, recognizes that there are majors with special academic or career objectives and special interests; therefore, some program requirements can be modified. For details, students may request the department's Guidelines for Majors.

II. Major Requirements 33 s.h.

- 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.

III. Free Electives 27 s.h.

Sociology majors are required to take at least 30 s.h. in upper-level courses with a minimum of 15 s.h. in sociology courses.

IV. Total Credits in Program 120 s.h.

Minor in Sociology

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.

Coordinate Major

We offer a coordinate major for students who also have a major in elementary education. Students have to meet the same requirements in sociology as other majors.

General Education Requirements **61 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
- 1701.201 Structures of Math

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

- 2001.100 Intro to Psych
(Personal/Emotional/Social)
- 2009.209 Child Development
Economics
OR
Political Science (Choice)
Geography (Not Physical Geography)

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

U.S. HISTORY COURSES

- 2205.150 United States to 1865
OR
- 2205.151 United States Since 1865
OR
- 2205.272 Issues in American History
- 2205.120 World History
OR
- 2205.100 Western Civilization to 1660
OR
- 2205.101 Western Civilization since 1660

- Literature (Choice)
- Philosophy or Religion (Choice)

Arts **3 s.h.**

- 1003.131 History of American Art
OR
- 1003.130 Art Appreciation

General Education Electives **15 s.h.**

- 0822.215 Educational Psych
- 0835.103 Health and Wellness
Non-Lab Science (Physical or Biological)
- 0821.150 History of American Education
- 2202.202 Cultural Anthropology

In addition to the above departmental requirements, ALL students must fulfill university-prescribed general education requirements. Please see the General Education information listed on page 39.

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.

0313 American Studies

0400 Biological Sciences

- 0401 Biology
- 0402 Botany
- 0407 Zoology
- 0410 Physiology, Human & Animal
- 0411 Microbiology
- 0414 Biochemistry
- 0418 Marine Biology
- 0420 Ecology
- 0421 Entomology
- 0422 Genetics
- 0427 Embryology

0500 Business & 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
- 0606 Public Relations

0607 Legal Aspects

0699 Applied Communication

(Cinematography - see 1010, Linguistics - see 1505, Speech Communication - see 1506, Creative Writing - see 1507, English as a Second Language - see 1508)

0700 Computer 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
- 0808 Special Education, General
- 0810 Education of Students with Cognitive Impairments
- 0817 Developmental Education
- 0819 Education of the Physically Impaired
- 0821 Foundations
- 0822 Educational Psychology
- 0823 Early Childhood Education
- 0828 Educational Leadership
- 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 & 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

1305 Family Relations and Child Development

1306 Foods and Nutrition

1498 Legal Processes

1500 English Language & Literature

1501 English, General

1502 Literature, English

1505 Linguistics

1506 Speech Communication

1507 Creative Writing

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 & Sciences
- 4902 Math and Science
- 4905 Honors
- 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.

0400 Biological Sciences

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 opportu-

nities 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.

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.

0401.430 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 Biological Science 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 Biological Science 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.

COURSE DESCRIPTIONS

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.

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, phys-

iology, 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

0414.348 Introduction to Biochemistry 4 s.h.

(Prerequisite: 1907.201)

This is the same as 0404.440 and includes laboratory work.

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

0418.360 Marine Biology 4 s.h.

(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

0420.100 Introduction to Natural Resources 3 s.h.

This introductory course considers natural resources and their relationship to man and society. For science and non-science majors.

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 interrelationships.

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.

0500 Business & Accounting

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.

0503.310 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, 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, Business or Accounting major, [Implemented Fall 2003])

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.

0503.300 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.

0503.405 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.

0503.409 Auditing Theory - Spring semester only**3 s.h.**

(Prerequisite: 0503.311, 1702.260, Senior standing as a Business or Accounting major)

This course provides an introduction to the theory of auditing where the student will be exposed to

the nature of auditing and auditing firms, audit reports, and generally accepted auditing standards. The emphasis is on concepts rather than mechanics. Topics covered include the role of the audit, the meaning of various audit reports, systems of internal control, the audit process with respect to various important transaction cycles, liability, fraud and ethics.

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, Business or Accounting major)

This course covers concepts and accounting for business combinations, governmental entities, and nongovernmental 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, 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)

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.

0504.420 Financial Markets - Spring semester only 3 s.h.

(Prerequisite: 0504.300, Senior standing as a Business or Accounting major)

This course studies the structure and dynamics of the U.S. financial markets. Students analyze the impact of monetary policy on the U.S. financial system and other topics of interest to the financial community.

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: Senior standing, 1702.261, 0504.300)

A seminar course providing a broad overview of contemporary issues in finance. The course seeks

to understand the underlying financial economics rationale that shapes the contemporary events and issues. Curricular contents will be regularly updated to include contemporaneous trends in the industry.

0504.425 Risk Management - Spring semester only 3 s.h.

(Prerequisite: 0504.300, 1702.261, Senior standing)

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.

0504.432 Financial Intermediaries - Fall semester only 3 s.h.

(Prerequisite: 0504.300, Senior standing as a Business or Accounting major)

This course traces general operations of the banking system and its effect on the currency and managing of money in the United States, banking structure and impact on community and individual, history of early banking and currency, FED system and

requirements, operation of commercial banks and the study of state and national banking structures.

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. Implementation Fall 2003

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.

0506.309 Organizational Behavior (WI) 3 s.h.

(Prerequisite: 1501.112, 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.

0506.315 Recruitment and Selection 3 s.h.

(Prerequisite: 0506.302, Junior standing as a Business or Accounting major, completion of 57 hours.)

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 structuring, 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 model 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 being integrated into these courses. 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 fran-

chising. 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 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.

0506.361 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, [Implemented Fall 2003])

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 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 who 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 of their choice. 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.

0506.440 Information Systems Planning & Network Management - Fall Semester only 3 s.h.

(Prerequisite: 0702.334, Senior standing as a Business or Accounting Major)

This course will make students familiar with the areas of information systems planning and network management. Students will apply the theoretical aspects of these topics by analyzing case

studies and completing other projects. Students will learn about network administration using the Novell LAN system.

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.

COURSE DESCRIPTIONS

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 Physical Distribution 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.

0509.391 Business and Industrial 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, Junior standing as a Business or Accounting major)

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.

0600 Communication

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.

COURSE DESCRIPTIONS

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.

0601.320 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.

0601.402 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, Composition & Rhetoric

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 hrs., 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 vari-

ous 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.

0602.314 Photojournalism 3 s.h.
(Prerequisite: 45 hrs.)

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.)

0602.317 Publication Layout and Design 3 s.h.

(Prerequisite: 45 hrs.)

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.

0602.318 Journalistic Sources of Information 3 s.h.

(Prerequisite: 45 hours)

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.

0602.319 Media Ethics 3 s.h.

(Prerequisite: 0601.203)

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.

0602.320 Electronic Journalism I: Radio 3 s.h.

(Prerequisite: 0603.220, 30 hrs., Permission of Instructor or Advanced Standing)

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.

**0602.330 International Media
Communication**

3 s.h.

This course examines systems of communication from a global perspective, analyzing the historical, cultural, and philosophical influences that have shaped those systems. The course enables students to analyze the systemic effects of globalization, new technologies, regulation, efforts of various groups to control development of communication structures, inequities in communication infrastructure, so-called cultural imperialism, and the linkage between international media and diplomacy, economics, and politics.

**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.

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 Introduction to the Electronic
Media**

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 Radio Broadcasting I

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.

0603.321 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 s.h.

(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.

0603.393 Film Scenario Writing 3 s.h.

(Prerequisite: 45 hrs.)

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.

0603.420 Current Issues in Electronic Media 3 s.h.

(Prerequisite: 0603.220, 1501.112)

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.

0603.433 Television Program Packaging 3 s.h.

(Prerequisite: 0603.220)

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.

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.

0604.415 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.

0604.430 Electronic Media Copywriting 3 s.h.

(Prerequisite: 0604.331, For students with a declared specialization in Advertising only, except with permission of instructor)

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.

0604.432 Media Planning 3 s.h.

(Prerequisite: 0604.330, For students with declared Advertising specialization only except with permission of instructor)

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.

0604.434 Advertising Campaigns - WI 3 s.h.

(Prerequisite: 0604.430)

This course prepares students to undertake and complete an extensive, creative, effective professional advertising campaign. The course includes instruction on how to prepare the speech which is made when the campaign is pitched to the client, extensive marketing and advertising research, final polishing of copywriting skills and a well prepared final oral presentation.

0606 Public Relations

0606.301 Basic Public Relations Writing

3 s.h.

(Prerequisite: 1501.111, 1501.112, Specialization only or Permission of instructor)

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.

0606.305 Advanced Public Relations Writing

3 s.h.

(Prerequisite: 0606.350, For students with declared Public Relations specialization only or permission of chair)

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.

0606.454 Public Relations Planning - WI 3 s.h.

(Prerequisite: 0606.305, 0606.350, 0606.353, 0699.361)

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

0607 Legal Aspects

0607.335 Communication Law 3 s.h.

(Prerequisite: 60 hrs.)

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.

0699 Applied Communication

0699.361 Introduction to Survey Research 3 s.h.

(Prerequisite: 60 hrs.)

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.

0699.363 Field Experience In Communication I 3 s.h.

(Prerequisite: permission of instructor, 75 hrs., Majors)

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.

0699.364 Field Experience In Communication II 3 s.h.

(Prerequisite: permission of instructor, 75 hrs., Majors)

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.

0699.365 Field Experience In Communication III 6 s.h.

(Prerequisite: permission of instructor, 75 hrs., Majors)

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.

0699.462 Public Opinion 3 s.h.

(Prerequisite: 0699.361 or 1506.330)

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.

0700 Computer Information Sciences

0701 Computer Science, General

0701.100 Computer Literacy 3 s.h.

This course teaches students how to use microcomputers effectively. Students learn about computer hardware and how it functions with an operating system and application software. Computer file management, data storage, multimedia, computer architecture, local area networks, the Internet, data security, and obtaining information from a library database are included. There is extensive hands-on use of windows, word processing, spreadsheets and the Internet.

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.

0701.200 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-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: 0704.103)

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.

0701.395 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 - Management and Management Information Systems

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.

0702.334 Management Information Systems 3 s.h.

(Prerequisite: Junior Standing as a Business Administration 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 Data Base Systems - Fall semester only 3 s.h.

(Prerequisite: 0702.300, Junior standing as a Business or Accounting Major with completion of at least 57 semester hours)

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.

0702.340 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.

0702.410 Advanced Database Management - Spring semester only 3 s.h.

(Prerequisite: 0702.338, 0702.322, 0702.430, Senior standing as a Business or Accounting Major, completion of 90 S.H.)

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.

0702.420 Seminar in Management Information Systems - Spring semester only 3 s.h.

(Prerequisite: 0702.338, 0702.322, 0702.430, Senior standing with completion of 90 s.h., Business 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.

0702.430 E-Business - Information Systems Perspectives - Fall semester only 3 s.h.

(Prerequisite: 0702.334 or 0503.420, 0704.103)

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.

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. Effective Fall 2003

0704.114 Object Oriented Programming and Data Abstraction 4 s.h.

(Prerequisites: C- or better in 0704.112, 1701.122 and 0704.113 or 0704.103 or a score of 4 or 5 on the Computer Science Advanced Placement 'A' Exam 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. Matriculation into this course requires formal and declared status as a Computer Science major or minor or permission.

0704.222 Data Structures and Algorithms 4 s.h.

(Prerequisite: must attain a C-or better in 0704.103, 1703.150)

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: must attain a C-or better in 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: must attain a C-or better in 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.

0704.380 Object Oriented Design 3 s.h.

(Prerequisite: must attain a C-or better in 0704.222)

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.

0704.390 Operating Systems 3 s.h.

(Prerequisite: must attain a C-or better in 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.

0704.392 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.

0704.400 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: 0704.340, 0707.321)

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: must attain a C-or better in 0704.103;1703.150;Co-requisite: 0701.205)

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)

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.

0707 Theory Methodology and Applications

0707.210 Foundations of Computer Science 3 s.h.

(Prerequisite: 1701.122, 1703.150 and Co-requirement: 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, 0704.222 or 0901.202, 1701.210 or 1701.242)
 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: must attain a C- or better in 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, 0701.205)
 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.

0707.360 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.

0707.422 Theory of Computing 3 s.h.

(Prerequisite: must attain a C- or better in 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, must attain a C- or better in 0704.222, 1703.150)
 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, 0704.103)

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.

0799 Computer Science, Other

0799.300 Computer Field Experience 3 s.h.

(Prerequisite: permission of instructor)

Students are assigned projects in a professional environment.

0800 Education

0801 Education, General

0801.101 Teaching As A Profession 1 s.h.

This introductory course for students planning to go into teaching informs the students about the teaching profession, including its designation as a profession, its professional characteristics, its historical development, and the images of teachers in literature and the mass media. This course considers the role of the Foundations of Education in teacher preparation and the many issues facing the profession. It also provides an overview of Rowan University's teacher education program.

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.

0801.400 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.

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.

0802.290 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.

0802.350 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.

0802.480 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

0803.201 Pedagogy I: Organization and Management for Student Learning 3 s.h.

(Prerequisite: 0801.101, Department acceptance via application a semester in advance)

Pedagogy I: Organization and Management for Student Learning incorporates two basic components: a field-based observation and classroom instruction. The major goal of the course is to have teacher candidates articulate their plan for effective teaching. The plan will reflect the current knowledge base in effective planning, instruction, and management and organization. Teacher candi-

dates' plans will reflect their ability to use instructional decision-making strategies and provide a rationale for such decisions.

0803.481 Pedagogy IV: Student Teaching 12 s.h.

(Prerequisite: 0801.101, 0821.301, 0803.201, 0821.401, Pedagogy III, permission of the Department)

This senior level course provides the teacher education candidate the opportunity to demonstrate the professional knowledge, pedagogic skills and problem-solving ability developed in pre-service, 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, an overall grade point average of 2.75, and recommendations by major field academic department and teacher education faculty.

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.

0808.206 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 Special Needs 3 s.h.

(Prerequisite: 0808.102, 0808.111, matriculation in Teacher of the Handicapped program)

This course emphasized linking assessment with educational instruction. Prospective classroom

teachers will learn how to routinely use norm-referenced instruments and criterion-referenced techniques. Introduction to statistical factors in testing, observation of testing, and administration of selected assessment instruments will be included. Students will also have the opportunity to develop informal assessments in conjunction with their field placement responsibilities.

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 Managing Behavior of Students with Special 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 the handicapped and how to apply those skills in classroom practices. This course is opened to all education majors but the emphasis will be on the education of the handicapped.

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 Educating Elementary Students with Mild/Moderate Disabilities 3 s.h.

(Prerequisite: 0808.326)

This senior-level course enhances the systematic progression of skills initiated during the first three years of the teacher of the handicapped program. The course prepares undergraduates to teach mildly/moderately disabled elementary-age children, covering instructional methods and strategies to teach self-help, motor, reading, math, language, study skills, science and social studies. The course

also emphasizes supporting mildly/moderately disabled children in mainstream classrooms.

0808.416 Educating Secondary Students with Mild/Moderate Disabilities 3 s.h.

(Prerequisite: 0808.326)

This course focuses on strategy instruction in content areas, methods of instructing the mildly/moderately handicapped secondary student and transition from school to adult life. Transitional issues of employment, vocational education and college will be presented. The course is offered during the senior year and is required within the mildly/moderately handicapped specialization.

0808.445 Senior Seminar in Special Education 3 s.h.

(Prerequisite: 0808.326, 0808.416 or 0810.320)

This senior level course is designed to be taken with student teaching. The seminar will focus on three major areas. These include: issues within the student's area of specialization, application of effective teaching research, and analysis and evaluation of the student teaching experience. The course is intended to be a capstone experience for all students in the Teacher of the Handicapped Program.

0808.450 Student Teaching in Special Education 12 s.h.

(Prerequisite: 0808.326)

As the culminating field experience for seniors in the Teacher of the Handicapped major, Student Teaching provides students with one semester of full-time placement in a classroom setting, serving handicapped students. Under college supervision, and working with a cooperating teacher, student teachers assume full responsibility for planning and teaching for the semester.

0810 Education of Students with Cognitive Impairments

0810.320 The Severely Retarded Child: Educational Needs and Programs 3 s.h.

(Prerequisite: 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.

0810.405 Educating Students with Severe/Profound Disabilities 6 s.h.

(Prerequisite: 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 multidisciplinary 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 pre-school through post-secondary education. It focuses on the social forces, sources of conflict, major educational figures and patterns of schooling during each period.

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)

0821.301 Educational Policy I: Introduction to Decision Making 3 s.h.

(Prerequisite: 0801.101)

This junior-level required course in educational policy examines the bureaucratic, political, and legal structures of educational policymaking; cultural and community contexts of schools; and policies generated at the local, state, and national levels. Also considered are the bureaucratic structures which determine educational policy and how family and community structures affect the implementation of these policies. Teachers must consider these factors as active decision-makers in their own classrooms, schools, and communities.

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.

0821.401 Educational Policy II: Seminar in Decision Making 3 s.h.

(Prerequisite: 0801.101, 0821.301)

Students in this required senior-level course examine the value dimensions of educational decision-making as they are affected by individual valuing processes and the schooling process. They focus on the prospective teachers' roles as decision-makers in the classroom, the school district, the community, and the profession. The course will provide an opportunity for students to apply the foundational knowledge and skills they have acquired to a problem or issue in an actual school setting. This course is vital for providing teachers with the operating basis to begin their professional lives as pro-active researchers, decision-makers, and change-agents.

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.

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.

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.

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 Integrating and Adapting Curriculum Across Content Areas 3 s.h.

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.

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.

0828.305 Leadership Seminar II (capstone) 3 s.h.

(Prerequisite: 0828.100, 0828.205)

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.

0830 Reading Education

0830.301 Foundations of Reading 3 s.h.

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.

0830.310 Teaching Reading in the Content Areas 3 s.h.

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.

0830.319 Pedagogy II: Teaching Reading in the Content Areas (For Secondary Education Majors) 3 s.h.

(Prerequisite: 0803.201)

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.

0830.320 Language Development, Emergent Literacy, and Reading in Young Children 4 s.h.

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.

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.

**0830.421 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 and 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

**0831.100 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.

**0831.350 Pedagogy III A - Teaching
Elementary School Art 3 s.h.**

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 curriculum, 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 Pedagogy III B - Teaching
Secondary School Art 3 s.h.**

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.

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 Pedagogy IIIA: General Music Methods 2 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 Pedagogy IIIB: Vocal Methods and Techniques 2 s.h.

This course, along with other courses in a series, helps to prepare students to teach the choral arts in the public schools with particular attention to grades 7-12. Techniques of teaching, vocal training, choral organization and the philosophy of teaching choral music are the areas to be emphasized.

0832.331 Pedagogy IIIB: 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.

0832.411 Pedagogy IV: Student Teaching-Music 12 s.h.

(Prerequisite: 0803.201, 0821.401, Pedagogy III A, B or C, 0801.101, 0821.301, 0821.401)

This senior level course provides the teacher education candidate with opportunities to demonstrate the professional knowledge, pedagogic skills and problem-solving ability developed in pre-service, professional course work. A supervised 16-week field experience. 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.

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.

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.

0833.451 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.

0834 Science Education

0834.451 Pedagogy III: Practicum in Secondary Science Teaching 5 s.h.

(Prerequisite: 0803.201, 0821.401)

(Check with department for semester offered)

This five-credit junior-level course is designed for students majoring in one of the sciences and planning careers as a secondary school science teacher. It includes both campus and public school based experiences dealing with a wide variety of topics including science pedagogy, laboratory safety, lesson planning, and classroom management. 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.

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.

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 Health and Exercise Science 3 s.h.

(must be accepted to H.E.S. major)

This course is designed to help students develop a functional knowledge base for the Health and Exercise Science discipline. Students will become aware of the interrelationships between the fields of Health, Physical Education and Wellness. Classes will focus on examining the history, philosophy, goals, organization and administration of Athletic Training, Health Promotion and Fitness Management and Physical Education.

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.

0835.205 Teaching Concepts of Team Sports 3 s.h.

(Prerequisite: 0835.286, 0835.270)

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.

0835.218 Prevention and Care of Athletic Injuries 3 s.h.

An examination of current practices and procedures in the basic pathology, prevention and care of athletic injuries. The laboratory experience exposes students to wound care, padding, and the art and science of athletic injury taping. An observational clinical field experience will be required.

0835.219 Pathology and Evaluation of Athletic Injuries I 4 s.h.

(Prerequisite: 0410.210, 0410.212, 0835.218)

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.

0835.220 Pathology and Evaluation of Athletic Injuries II 4 s.h.

(Prerequisite: 0835.219)

This course provides an examination of the etiology, epidemiology, pathology and assessment of injuries and illnesses to the upper extremity, head,

axial skeleton, chest, thorax and common illnesses. Structural, functional and surface anatomy will be reviewed. Current management philosophies will be addressed.

0835.228 Rhythmic Activities and Forms 3 s.h.

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.

0835.231 Teaching Concepts of Individual & Dual Sports 3 s.h.

(Prerequisite: 0835.286, 0835.270)

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.

0835.235 Safety, First Aid and Prevention 3 s.h.

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.

0835.241 Structure and Function of the Human Body I 3 s.h.

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.

0835.242 Structure and Function of the Human Body II 3 s.h.

(Prerequisite: 0835.241)

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: 0835.135 or permission of instructor)

Built on course work in the university general education model and the health and exercise science academic core, this foundation of teaching course focuses on decision making as it relates to classroom planning and management in health and physical education. Through simulation experiences, study of the professional literature and school-based learning experiences, students are introduced to teaching strategies, student behaviors, classroom management skills and current issues in the teaching profession.

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-requisite: 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, dietitian/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.

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 in an affiliated 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 in an affiliated 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

ed to demonstrate the development of critical thinking skills.

0835.342 K-12 Physical Education Curriculum & Instruction 3 s.h.

(Prerequisite: 0835.286 Co-requisite: 0835.336, 0835.392, 0837.453)

This course is a critical junior level course designed to help prepare health and exercise science majors to become successful physical education teachers in schools. Students will develop expertise in curriculum construction, planning, instruction and evaluation for implementation at the elementary, middle and high school levels.

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-comput-

er 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.

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 ath-

letic 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 2 s.h.

This course provides an introduction to the health problems of the atypical student and includes study of activities in the physical education program that will best meet student needs. Problems will include postural deviations, cardiac conditions, brain damage involvements, emotional conditions and chronic health problems such as epilepsy and asthma.

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 Student Teaching in Health and Physical Education Elementary School 6 s.h.

This course allows students to work under the guidance of an experienced elementary health and physical education teacher. Student teachers gain experience and develop insight and skill in the art of teaching elementary school health and physical education. An application for student teaching must be submitted and approved through the Office of Field Experiences.

0835.461 Student Teaching in Health and Physical Education Secondary School 6 s.h.

This course allows students to work under the guidance and direction of an experienced secondary health and physical education teacher. Student teachers gain experience and develop insight and skill in the teaching of secondary school health and physical education. An application for student teaching must be submitted and approved through the Office of Field Experiences.

0835.465 Senior Seminar in Teaching Health & Physical Ed. 2 s.h.

(Prerequisite: 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 medicine for the undergraduate athletic training student. The course will focus on issues in pharmacology and general medication 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.

0837.180 Psychological Aspects of Health 3 s.h.

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.

0837.192 Contemporary Health I 3 s.h.

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.

0837.193 Contemporary Health II 3 s.h.

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.

0837.209 Health Education for Elementary School Teachers 1 s.h.

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.

0837.210 Consumer Health Decisions 3 s.h.

This course examines the rights and responsibilities of a consumer faced with increasing amounts of information related to his or her overall well-being. It examines the major problem of health fraud and the components of scientific research. The role of advertising is explored, as well as

sound principles for purchasing nutrition, fitness and other health-related products and services. Students learn important concepts related to health insurance and hospitals, traditional and alternative medical care and how to better manage the decisions they make.

0837.310 Foundations of Health Promotion and Fitness Management 3 s.h.

(Prerequisite: Co-Requisite for 0837.350)

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.

0837.329 Laboratory in Personal Training Techniques 1 s.h.

(Prerequisite: or co-requisite 0835.401)

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.

0837.340 Administration of Health Promotion and Fitness Programs 3 s.h.

(Prerequisite: 0837.170, 0837.350, 1306.200)

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 in both schools and communities. Students are given opportunities for integrating and correlating health in various settings. Field experiences and actual planning and teaching experiences are a part of this course.

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

0838.451 Pedagogy III: Practicum in Secondary General Business 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 business and planning a career as a secondary school business teacher. It includes both campus and public school experiences dealing with a wide variety of topics including business pedagogy, classroom management, testing and assessment, and motivation. 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.

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

0850.451 Pedagogy III: Practicum in Secondary English/Language Arts Teaching 5 s.h.

(Prerequisite: 0803.201, 0/21.401)

(Check with department for semester offered)

The five-credit, junior-level course is designed for students majoring in English/ Language Arts and planning a career as a secondary school English teacher. It includes both campus and public school experiences dealing with a wide variety of topics including short and long range planning; classroom management techniques and teaching the basic language skills of reading, writing, speaking, listening, and thinking. 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.

0851 Foreign Language Education

0851.451 Pedagogy III: Practicum in Foreign Language Teaching 5 s.h.

(Prerequisite: 0803.201, 0821.401)

(Check with department for semester offered)

This five-credit junior-level course is designed for students majoring in a foreign language and planning a career as a foreign language teacher. It includes both campus and public school based experiences dealing with variety of topics including language acquisition, foreign language pedagogy, less on planning and classroom management. 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.

0852 Social Studies Education

0852.451 Pedagogy III: Practicum in Secondary Social Studies Teaching 5 s.h.

(Prerequisite: 0803.201, 0821.401)

(Check with department for semester offered)

This five-credit junior-level course is designed for students majoring in one of the social sciences and planning careers as secondary school social studies teachers. It includes both campus and public school based experiences dealing with a wide variety of topics including social studies pedagogy, lesson planning, and classroom management. 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.

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 and as a resource person to the school faculty. Discussions and experiences center on theories of teaching and learning, curriculum development, methods and materials of teaching, and student evaluation, as well as the integration of health teaching into various school subjects.

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. This course is offered in the fall for B.A. and non-BSN certification students only.

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 and 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. This course is offered in the spring for B.A. and non-BSN certification students only.

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 Student Teaching 6 s.h.

(Prerequisite: 0892.430, 0892.444, matriculation in School Nursing Program)

The purpose of this field experience is to provide an opportunity for the student to teach health classes in a classroom setting. The student will also benefit from the opportunity to observe experienced teachers during their teaching, participate in teaching planning sessions, and attend curriculum and related meetings. A college supervisor will visit the student in the employed or field placement situation. Meetings of all students enrolled in the Student Teaching experience are held periodically at the college. Pre-registration consultation with instructor is required one semester prior.

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. Educational Policy should be taken prior or concurrently.

0900 Engineering

0901 Engineering, General

0901.101 Freshman Engineering Clinic I 2 s.h.

(Prerequisite: Concurrent enrollment in 1906.105 and 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.

(Prerequisite: 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.

0901.272 Solid Mechanics 2 s.h.

(Prerequisite: 0901.271)

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.

0901.281 Material Science 2 s.h.

(Prerequisite: 1906.105, 1902.200)

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.

0901.282 Manufacturing Processes 2 s.h.

(Prerequisite: 1906.105, 0901.281, 1902.200)

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.

0901.291 Dynamics 2 s.h.

(Prerequisite: 1902.200, 0901.271)

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.

0901.301 Junior Engineering Clinic I 2 s.h.

(Prerequisite: 0901.202)

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.

0901.302 Junior Engineering Clinic II 2 s.h.

(Prerequisite: 0901.301)

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.

0901.341 Fluid Mechanics I 2 s.h.
(Prerequisite: 1902.200, 1701.236)

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 non-holonomic 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: 0906.402, 0906.401)*

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.

0906.441 Process Safety 3 s.h.*(Prerequisite: 0901.341, 1906.100 or 1906.105, 0910.311 or 0906.310)*

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.

0906.442 Fluid Flow in Processing and Manufacturing 3 s.h.*(Prerequisite: 0901.341)*

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.

0906.462 Bioprocess Engineering 3 s.h.*(Prerequisite: 1906.100 or 1906.105, 1701.130)*

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.

0906.463 Green Engineering of Chemical Processes 3 s.h.*(Prerequisite: 0906.314, 0906.316)*

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.

0906.464 Advanced Separation Technology 3 s.h.*(Prerequisite: 0906.314)*

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 preevaporation. Commercial system design parameters and laboratory demonstrations will be included. An overview of other novel separation processes will be done.

0906.465 Advanced Design of Reactors 3 s.h.*(Prerequisite: 0906.316)*

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.

0906.466 Polymer Processing 3 s.h.*(Prerequisite: 0901.281, 0906.310)*

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 princi-

ples 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, pervaporation, gas permeation, and their application to traditional and emerging fields. Membrane materials and structure. Mass transfer and design aspects for both liquid and gas separation systems.

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, and 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, groundwater flow, and stream flow. The topics covered in hydraulics include the analysis and design of hydraulic structures such as weirs, open channels, culverts, and storm sewers. The course includes appropriate laboratory experiments and computer applications.

0908.351 Geotechnical Engineering 3 s.h.

(Prerequisite: 0901.341, 0908.301, 0901.272)
 The course deals with the basic principles of geotechnical 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.

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 Physiochochemical 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.

0908.463 Transportation Planning, Demand, and Data Analysis 3 s.h.

(Prerequisite: Senior standing or permission of instructor)

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.

0908.464 Elements of Transportation Engineering of Seniors 3 s.h.

(Prerequisite: 0908.361, or permission of instructor)
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.

0908.465 Pavement Analysis and Evaluation 3 s.h.

(Prerequisite: 0908.361, or permission of instructor)
The fundamental theme of the course is the engineering study of pavement response.

0908.473 Advanced Structural Analysis for Seniors 3 s.h.

(Prerequisite: 0908.383 or equivalent, 0908.281, 0908.382)
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.

0908.481 Reinforced Concrete Design 3 s.h.

(Prerequisite: 0901.271, 0901.272)
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.

0908.484 Prestressed Concrete for Seniors 3 s.h.

(Prerequisite: 0908.281 or permission of instructor)
The fundamental theme of this course is the analysis and design of prestressed concrete members for highway bridges, parking structures, office buildings, and industrial buildings. Topics covered include prestressed construction applications and materials, flexural analysis of pretensioned and post-tensioning beams, bending and shear design,

loss of prestress, deflection, and composite beams. The course includes appropriate computer applications.

0908.485 Advanced Reinforced Concrete for Seniors 3 s.h.

(Prerequisite: 0908.281 or permission of instructor)
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.

0908.486 Bridge Engineering for Seniors 3 s.h.

(Prerequisite: 0908.383 or equivalent, 0908.281, 0908.382)
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: 1902.201, 1701.235, 0909.201, concurrent enrollment in 1701.236)

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.

0909.242 Digital II: Microprocessors 2 s.h.

(Prerequisite: 0909.241)

The second course in digital systems covering principles of computer systems design including hardware and software. The course also treats applications of computer design.

**0909.301 Engineering
Electromagnetics I 2 s.h.**

(Prerequisite: 1701.236, 1902.200)

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.

**0909.302 Engineering
Electromagnetics II 2 s.h.**

(Prerequisite: 0909.301, 1701.236)

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.

0909.311 Electronics I 2 s.h.

(Prerequisite: 0909.201)

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.

0909.312 Electronics II 3 s.h.

(Prerequisite: 0909.311)

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.

0909.321 Systems and Control I 3 s.h.

(Prerequisite: 0909.202, 1701.236, 0909.241)

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.

0909.322 Systems and Controls II 3 s.h.

(Prerequisite: 0909.321)

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: 0909.202, 1701.236)

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 mathe-

tical 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 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 (form, fuels, conversion technologies), energy use and its impact on a globalizing economy, life cycle assessment tools and environmental management techniques, ISO 14001 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 implica-

tions 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 bused 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.

0909.471 Instrumentation 3 s.h.

(Prerequisite: 0909.311, 0909.201 or consent of instructor)

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.

0909.481 Backplane Design 3 s.h.

(Prerequisite: Digital hardware background that includes VHDL, permission of instructor)

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.

0909.483 Digital Design w/VHDL 3 s.h.

(Prerequisite: 0909.242)

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.

0909.484 Mixed Signal Technology 3 s.h.

(Prerequisite: 0909.202, 0909.242, 0909.312)

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.

0909.498 Seminar: Engineering Frontiers 1 s.h.

(Prerequisite: Concurrent enrollment in 0909.402)

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.

0910 Mechanical Engineering

0910.201 Vibrations 2 s.h.

(Prerequisite: 0901.271, 1902.200, 0901.291)

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 sys-

tems. 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.

0910.403 Emerging Topics in Mechanical Engineering 2 s.h.

(Prerequisite: 0906.311 or equivalent)

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.

0910.405 Special Topics in Mechanical Engineering 3 s.h.

(Prerequisite: Permission of Instructor)

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.

0910.411 Introduction to Combustion 3 s.h.

(Prerequisite: 0910.312 or equivalent)

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.

0910.412 Introduction to Rocket Propulsion 3 s.h.

(Prerequisite: 0910.312, 0910.313 or equivalent)

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.

0910.413 Advanced Heat and Mass Transfer 3 s.h.

(Prerequisite: 0910.312, 0906.311 or equivalent)
 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.

0910.414 Introduction to Energy Conversion Systems 3 s.h.

(Prerequisite: 0910.312, 0901.341)
 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.

0910.421 Introduction to Gas Dynamics 3 s.h.

(Prerequisite: 0910.313, 0910.312)
 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.

0910.451 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 intro-

duced. 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.

0910.475 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.

1000 Fine & Performing Arts

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, 1002.110 or permission of instructor)

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 0 s.h.
After completing the Foundation Studio Core, each student will present a portfolio of twelve works executed in design and drawing. This portfolio will include at least six drawings and at least six 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.

1002.225 Intermediate Painting II 3 s.h.
These studios continue the study of painting, emphasizing the expressive and physical qualities of media, pictorial composition and color theory.

1002.240 Introduction to Sculpture I 3 s.h.
(Prerequisite: 1002.222 or permission of instructor)

This course involves studio directed projects in three-dimensional problem solving. It introduces a variety of basic sculptural techniques using traditional sculptural materials. Areas covered are casting, woodworking and modeling.

1002.245 Intermediate Figure Sculpture 3 s.h.
(Prerequisite: 1002.222 or permission of instructor)

This studio emphasizes the analytical and expressive potential of the human figure in sculpture by working in a variety of techniques and methods, including modeling in clay from the live figure. Techniques of moldmaking and casting are an integral part of the course.

1002.251 Intermediate Sculpture II 3 s.h.
(Prerequisite: 1002.222 or permission of instructor)

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.

1002.260 Introduction to Printmaking I 3 s.h.
(Prerequisite: 1002.222 or permission of instructor)

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.

1002.261 Intermediate Printmaking II 3 s.h.
(Prerequisite: 1002.260 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.

1002.300 Workshop in Art 3 s.h.

This course explores various studio experiences and techniques. The area(s) to be covered will be identified prior to registration each semester. For non-art majors only.

1002.301 Intermediate Sculpture III 3 s.h.

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.

1002.302 Intermediate Sculpture IV 3 s.h.

(Prerequisite: all previous Sculpture courses or permission of instructor)

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.

1002.303 Glass-Working I 3 s.h.

(Prerequisite: 1002.100, 1002.102, 1002.110, 1002.207 or permission of instructor)

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: 1002.220 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: 1002.110 or permission of instructor)

Students paint from life and costumed figures to strengthen their understanding of figure articulation, action, proportion and anatomical construction.

1002.327 Aquarelle (Intermediate Level) 3 s.h.

(Prerequisite: 1002.222 or permission of instructor)

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.

1002.360 Advanced Printmaking VI 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

1002.370 Selected Topics in Glass-Working 3 s.h.

(Prerequisite: 1002.222 or permission of instructor)

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.

1002.400 Independent Study 3-6 s.h.

Intended primarily for students working at an advanced level in one of the regular studio areas, this course allows students to complete various projects. Students must show sufficient maturity and experience to assure successful completion of the proposed project.

1002.401 Advanced Sculpture V 3 s.h.

These studios explore advanced problems in sculpture. Students work in consultation with the instructor.

1002.402 Advanced Sculpture VI 3 s.h.

These studios explore advanced problems in sculpture. Students work in consultation with the instructor.

1002.403 Glass-Working V 3 s.h.

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.

1002.404 Glass-Working VI 3 s.h.

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.

1002.411 Advanced Sculpture VII 3 s.h.

These studios explore advanced problems in sculpture. Students work in consultation with the instructor.

1002.412 Advanced Sculpture VIII 3 s.h.

(Prerequisite: all previous Sculpture courses or permission of instructor)

These studios explore advanced problems in sculpture. Students work in consultation with the instructor.

1002.414 Advanced Painting V 3 s.h.

These studios provide advanced study emphasizing individual conception of the painted image, composition and design in both representational or abstract painting.

1002.416 Advanced Painting VI 3 s.h.

These studios provide advanced study emphasizing individual conception of the painted image, composition and design in both representational or abstract painting.

1002.420 Advanced Painting VII 3 s.h.

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.

1003.131 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.

1003.205 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. No prerequisites but students are urged to take Art History Survey I and II prior to taking Art History Survey III.

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.

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 consent 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 and/or 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 0 s.h.
Students perform for both faculty and students. Seven or eight semesters are required, depending on the chosen curriculum.

1004.105 Jazz Improvisation I/Applied 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.

1004.106 Jazz Improvisation II/Applied 2 s.h.
(Prerequisite: 1004.105)
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.

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.

1004.121 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.

1004.125 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.

1004.127 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).

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).

1004.130 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.

1004.202 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.

1004.207 Jazz Improvisation III/Applied 2 s.h.

(Prerequisite: 1004.106)

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.

1004.208 Jazz Improvisation IV/Applied 2 s.h.

(Prerequisite: 1004.207)

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.

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.

1004.225 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.

1004.227 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).

1004.229 Secondary Applied Piano (Jazz) 1 s.h.

(Prerequisite: 1097.101)

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.

1004.230 Secondary Applied Piano II (Jazz) 1 s.h.

(Prerequisite: 1004.229)

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.

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.

1004.241 Music Theory IV - Written 2 s.h.

(Prerequisite: Must attain a C- or better in 1004.240 & 1004.242, must be taken concurrently with 1004.243)

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.

1004.242 Music Theory III - Aural 2 s.h.

(Prerequisite: Must attain a C- or better in 1004.131 & 1004.133, must be taken concurrently with 1004.240)

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.

1004.243 Music Theory IV - Aural 2 s.h.

(Prerequisite: Must attain a C- or better in 1004.240 & 1004.242, must be taken concurrently with 1004.241)

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.

1004.305 Jazz Improvisation V/Applied 2 s.h.

(Prerequisite: 1004.208)

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.

1004.306 Jazz Improvisation VI/Applied 2 s.h.

(Prerequisite: 1004.305)

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.

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.

1004.321 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.

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.

1004.325 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.

1004.327 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).

1004.329 Junior Recital P/NC

(Prerequisite: students must be concurrently enrolled in or have successfully completed 1004.322, 1004.234, 1097.405 or 1097.308)

The Junior Recital is the recital performance culminating six semesters of applied lessons for performance majors.

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.

1004.344 Audio Recording 3 s.h.

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.

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.

1004.361 Arranging for Large/Small Jazz Ensembles 3 s.h.

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.

**1004.363 Writing in Contemporary/
Traditional Jazz Styles 3 s.h.**

(Prerequisite: 1004.217, Jazz Improvisation I-V)

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.

1004.403 Vocal-Choral Arranging 2 s.h.

Students explore the art of arranging songs for choral groups with or without accompaniment. Music for different choral ensembles is written, rehearsed and sung by the class.

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.

**1004.407 Jazz Improvisation VII/
Applied 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 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.

1004.409 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 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.

1004.411 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.

**1004.421 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.

1004.425 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.

1004.427 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).

1004.430 Senior Recital 3 s.h.

(Prerequisite: students must be concurrently enrolled in or have successfully completed 1097.406, 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.

1004.450 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.

1006 Music History and Appreciation

1006.102 General Music History 3 s.h.

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.

1006.109 Music Appreciation 3 s.h.

Music literature is approached through recordings, live performance and appropriate reading.

1006.115 Growth and Development of Jazz 3 s.h.

African and European influences, the evolution of jazz styles and the influence of jazz on the musical world are covered.

1006.117 Expressing Music 3 s.h.

The language of music is learned through singing, rhythmic reading, creative, instrumental and playing activities.

1006.120 Keyboard Literature 3 s.h.

The course is a survey of the important compositions written for keyboard instruments, primarily piano, from ca. 1600 to the present. This course may not be offered annually.

1006.210 Vocal Literature 2 s.h.

(Prerequisite: 1097.400)

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.

1006.211 Brass and Woodwind Literature 3 s.h.

Brass and woodwind literature informs the music students of the availability of the following brass and woodwind materials: methods and studies, ensemble literature, solos, books, periodicals and recordings. This course may not be offered annually.

1006.214 Development of Musical Styles and Form I 3 s.h.

The principle forms and styles of music and their place in the history of Western Civilization from ancient times through the Renaissance are studied.

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 the-

atre 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.

1007.195 Exploring Social Issues through Theatre 3 s.h.

The student will study theatrical styles as a response to the problems of society. Issues like sexism, racism, aging, intercultural conflicts and the AIDS crisis will be explored as they appear in theatrical forms such as the problem play, comedy and the epic theatre.

1007.201 Introduction to Theatre 3 s.h.

Students study principal dramatic types from ancient to modern with emphasis on the distinguishing characteristics of form (tragedy, melo-dra-

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ma, 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.

1007.203 Costuming I 3 s.h.

This course will present techniques by which stage costumes are constructed. Students will also be given an outline of the development of fitted clothing. A series of costuming projects will give students a basic understanding of costume design for the theatre.

1007.205 Costuming II 3 s.h.

(Prerequisite: 1007.203)

This is a continuation of the study begun in Costuming I.

1007.215 Experiencing Acting 3 s.h.

This course is for non-major students interested in exploring their talents. Through the use of improvisation, theatre games and scene projects, students examine how actors strengthen and use imagination, awareness and creativity, and how they analyze, prepare and perform a role.

1007.230 Stagecraft I (Fall) 1.5 s.h.

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.

1007.231 Stagecraft II (Spring) 1.5 s.h.

Stagecraft II is a continuation of the study begun in Stagecraft I.

1007.232 Stagecraft III (Fall) 1.5 s.h.

(Prerequisite: 1007.230, 1007.231 or the consent of the instructor)

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.

1007.233 Stagecraft IV (Spring) 1.5 s.h.

(Prerequisite: 1007.230, 1007.231 or the consent of the instructor)

This course is a continuation of the study begun in Stagecraft III.

1007.235 Acting I (Majors Only) 3 s.h.

(Prerequisite: 1506.103 or the consent of the instructor)

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.

1007.236 Acting II 3 s.h.

(Prerequisite: 1007.235 or the consent of the instructor)

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.

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.

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, Imamu Amiri Baraka, Susan Lori Parks, Efua Sutherland and Femi Osofisan. It will also examine the influences of play directors, actors and musicians (Hip-Hop, Jazz, Blues, etc.) who contribute to that aesthetic continuum. The practices, issues and achievements of these playwrights and their unique forms of theater shall be used to project a future for African American the-

atre 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 the consent of the 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 the consent of the 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, includ-

ing 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 the consent of the 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.

1007.353 Stage Lighting Design and Practice 3 s.h.

(Prerequisite: 1007.231 or the consent of the 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 hrs.)

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: 1007.230-233 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: 1007.230-233 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 the consent of the 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 the consent of the 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 absurdists, 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 0 s.h.*(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.

1008.135 Elements of Dance 3 s.h.

This course provides training at the elementary level of technique in ballet, jazz and modern dance. It explores movement in time, space and energy relationships, emphasizing individual and group creative experiences through improvisations.

1008.140 Dance Improvisation I 1.5 s.h.

The course explores the creation of spontaneous movement experiences with the purpose of increasing body awareness, movement invention and movement creativity. This course is offered once annually. Effective Fall 2003.

1008.141 Dance Improvisation II 1.5 s.h.*(Prerequisite: 1008.140)*

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.

1008.146 World Dance Forms 3 s.h.

This is a movement course which introduces students to a broad spectrum of dances from Asia, Europe, the Middle East, Africa, and the Americas. Emphasis is placed upon learning and performing

dances from various countries throughout the world. The socio-historical context within which each dance form evolved is also examined. No previous training in dance is required.

1008.151 Ethnic and Character Dance 3 s.h.*(Prerequisite: 1008.135 or permission of the Dance Coordinator)*

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.

1008.190 Ballroom Dance 3 s.h.

This movement course introduces the student to Ballroom Dance and its various forms: foxtrot, waltz, swing, jitterbug, disco, club, samba, merengue, rumba, cha cha, and tango. Emphasis is placed upon basic steps, body placement, style, musicality, choreography, and the fundamentals of partnering. Observing, critiquing, and researching ballroom dance are also included within the course.

1008.202 Tap Dance I 3 s.h.*(Prerequisite: 1008.135 or permission of the Dance Coordinator)*

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.

1008.203 Tap Dance II 3 s.h.

This course continues the study of tap on an intermediate level.

1008.222 Dance for the Musical Theatre 3 s.h.*(Prerequisite: 1008.135 or permission of the Dance Coordinator)*

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.

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 of 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.

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.

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1008.326 Dance Composition I 3 s.h.

(Prerequisite: 1008.237)

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.

1008.330 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.

1008.336 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.

1009.210 Introduction to Jewelry and Metalry I 3 s.h.

(Prerequisite: 1002.222 or permission of the 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 silver-smithing 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, playwrighting 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.

1009.229 Intermediate Illustration II 3 s.h.

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.

1009.240 Introduction to Ceramics I 3 s.h.

(Prerequisite: 1002.222 or permission of instructor)

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.

1009.241 Intermediate Ceramics II 3 s.h.

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.

1009.242 Intermediate Ceramics III 3 s.h.

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.

1009.243 Intermediate Ceramics IV 3 s.h.

(Prerequisite: all previous Ceramics courses or permission of instructor)

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.

1009.308 Color Theory 3 s.h.

Through an investigation of classification systems and theories, color theory students will construct color relationships for various applications with paint and digital media.

1009.310 Intermediate Puppetry III 3 s.h.

This course is devoted to structuring puppet experiences in the classroom and teaching with puppets.

1009.311 Intermediate Jewelry/Metalry III 3 s.h.

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.

1009.312 Intermediate Jewelry/Metalry IV 3 s.h.

(Prerequisite: all previous Jewelry/Metalry courses or permission of instructor)

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.

1009.313 Intermediate Puppetry IV 3 s.h.

This course is devoted to structuring puppet experiences in the classroom and teaching with puppets.

1009.336 Intermediate Illustration III 3 s.h.

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.

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.

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: all previous Graphic Design courses 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: 1009.343, 1009.351, 1009.452)

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.

1009.359 Web Design II 3 s.h.

(Prerequisite: 1009.358)

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.

1009.363 Advanced Graphic Design V 3 s.h.

These studios emphasize more advanced study helping students refine their professional skills. Students will assemble portfolios, which can be presented to prospective employers.

1009.364 Advanced Graphic Design VI 3 s.h.

These studios emphasize more advanced study helping students refine their professional skills. Students will assemble portfolios, which can be presented to prospective employers.

1009.365 Motion Graphics I 3 s.h.

(Prerequisite: 1009.351)

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.

1009.375 Motion Graphics II 3 s.h.

(Prerequisite: 1009.365)

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

1009.377 Multimedia Computer Art 3 s.h.

(Prerequisite: 1009.365)

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.

1009.380 Advanced Puppetry V 3 s.h.

(Prerequisite: all previous Puppetry courses or permission of instructor)

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.

1009.381 Advanced Puppetry VI 3 s.h.

These studio courses offer in-depth involvement with sophisticated puppetry techniques. Students will develop individual expertise, style and approaches to the art of puppetry.

1009.390 Work in Progress Review 0 s.h.

(Prerequisite: 1002.222, at least nine additional credits in studio-minimum of 21 studio credits)

A required review of work-in-progress for all B.F.A. students.

1009.401 Senior Show or Project 0 s.h.

Each B.A. student will prepare and mount selected works as a senior exhibition or execute an equivalent project. Required for graduation.

1009.405 Advanced Puppetry VII 3 s.h.

These studio courses offer in-depth involvement with sophisticated puppetry techniques. Students will develop individual expertise, style and approaches to the art of puppetry.

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/Metalry 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 metalry as a professional field. Students will identify research, and create special works in consultation with their professor.

1009.412 Advanced Jewelry/Metalry 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 metalry 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 vocabu-

lary 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.

1009.460 Advanced Jewelry/Metalry VII 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 metalry as a professional field. Students will identify research, and create special works in consultation with their professor.

1009.461 Advanced Jewelry/Metalry VIII 3 s.h.

(Prerequisite: all previous Jewelry/Metalry courses or permission of instructor)
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.

1009.463 Advanced Graphic Design VII 3 s.h.
 These studios emphasize more advanced study helping students refine their professional skills. Students will assemble portfolios, which can be presented to prospective employers.

1009.464 Advanced Graphic Design VIII 3 s.h.
(Prerequisite: all previous Graphic Design courses or permission of instructor)
 These studios emphasize more advanced study helping students refine their professional skills. Students will assemble portfolios, which can be presented to prospective employers.

1009.490 B.F.A. Senior Thesis Exhibition 0 s.h.
(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 Cinematography

1010.270 Film History and Appreciation I 3 s.h.
(Prerequisite: 30 hrs.)
 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.

1010.271 Film History and Appreciation II 3 s.h.
(Prerequisite: 30 hrs.)
 This course is a continuation of 1010.270 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.

1010.272 Images of Women in Film 3 s.h.
(Prerequisite: 30 hrs.)
 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.

1010.370 Film Theory and Technique I 3 s.h.
(Prerequisite: must be a Communication major with a specialization in Radio/TV/Film, have completed 45 credit hours)
 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.

1010.371 Film Theory and Technique II 3 s.h.
(Prerequisite: 1010.370, or Permission of Instructor)
 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.

1010.372 American Film Directors 3 s.h.
(Prerequisite: 45 hrs.)
 Through historical perspective and criticism, this course provides an in-depth study of films by American directors. This course may not be offered annually.

1010.373 Communication Techniques in Film 3 s.h.
 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.

1010.470 Advanced Filmmaking 3 s.h.
(Prerequisite: 1010.370, 1010.371 or Permission of Instructor)
 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.

1010.471 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.

1011 Photography**1011.250 Introduction to Photography I 3 s.h.**

(Prerequisite: 1002.100 or permission of instructor)

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.

1011.275 Intermediate Photography II 3 s.h.

(Prerequisite: 1011.250)

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 print-making, 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 book-binding 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, print-making, 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, Developmental Skills

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.

1097.106 Major Applied-Instrumental II 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.

1097.107 Major Applied-Voice I 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.

1097.108 Major Applied-Voice II 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.

1097.114 Secondary Applied-Instrumental I 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.

1097.115 Secondary Applied-Instrumental II 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.

1097.124 Secondary Applied-Voice I 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.

1097.125 Secondary Applied-Voice II 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.

1097.205 Major Applied-Instrumental III 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.

1097.206 Major Applied-Instrumental IV 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 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 lan-

guages 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 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 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.

1097.306 Major Applied-Instrumental VI 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 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 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 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 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 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 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.

1097.101 Piano Class II 1 s.h.

(Prerequisite: 1097.100 or permission of the instructor)

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.

1097.102 Piano I for Non-Music Majors**3 s.h.**

Beginning piano taught in a class. No previous experience in music is necessary. Not for music majors.

1097.103 Piano II for Non-Music Majors**3 s.h.**

(Prerequisite: Piano I for Non-Music Majors or the consent of the instructor)

A continuation of Piano I for Non-Music Majors. Not for music majors.

1097.111 String Class-Low 1 s.h.

The fundamentals of cello and bass are studied. The fundamentals of cello and bass are studied.

1097.112 String Class-High 1 s.h.

Fingering and bowing patterns, tone production, tuning, methods and materials are studied for the violin and viola.

1097.200 Piano Class III 1 s.h.

(Prerequisite: 1097.101 or permission of the instructor)

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.

1097.201 Piano Class IV 1 s.h.

(Prerequisite: 1097.200 or permission of the instructor)

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.

1097.212 Conducting-Instrumental I 1 s.h.

This course demonstrates and rehearses the skills of instrumental conducting through music for instrumental ensembles.

1097.213 Conducting-Choral I 1 s.h.

The skills necessary to conduct choral music are developed through rehearsals in class and by participation in other planned ensemble situations.

1097.229 Guitar Class I 3 s.h.

A study of the guitar performance and a study of the materials available.

1097.230 Guitar Class II 3 s.h.

(Prerequisite: Guitar class I)

A continuation of the study of the guitar through performance and a study of the materials available.

1097.300 French Horn Class .5 s.h.

The fundamentals of the French horn are studied.

1097.301 Trombone Class .5 s.h.

The fundamentals of the trombone are studied.

1097.302 Percussion Class 1 s.h.
A study of rudimental and ensemble techniques of snare drum, timpani, bass drum, cymbals and accessory instruments.

1097.309 Trumpet Class .5 s.h.
The fundamentals of trumpet are studied.

1097.310 Tuba Class .5 s.h.
The fundamentals of tuba are studied.

1097.312 Conducting-Instrumental II 1 s.h.
(Prerequisite: 1097.212)
This course demonstrates and rehearses the skills of instrumental conducting through music for instrumental ensembles.

1097.313 Conducting-Choral II 1 s.h.
(Prerequisite: 1097.213)
The skills necessary to conduct choral music are developed through rehearsals in class and by participation in other planned ensemble situations.

1097.335 The Business of Music 3 s.h.
(Prerequisite: Junior Level)
The student will be able to learn about the commercial aspects of the music business, introduces music students to music publishing, music copyright laws, music licensing, artist management, recording industry, music in advertising, etc. Field trips play a very important role in the development of this course. Finally, the student will be made aware of careers in music other than music education and performance.

1097.400 Voice Class 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.

1097.401 Bassoon Class .5 s.h.
This course teaches the fundamentals of the bassoon.

1097.402 Clarinet Class .5 s.h.
This class teaches the fundamentals of the clarinet.

1097.403 Saxophone Class .5 s.h.
The fundamentals of the saxophone are studied.

1097.404 Reedmaking and Instrument Repair .5 s.h.
The fundamentals of reedmaking and repair of instruments are studied.

1097.409 Flute Class .5 s.h.
The fundamentals of the flute are studied.

1097.410 Oboe Class .5 s.h.
The fundamentals of the oboe are studied.

1100 FOREIGN LANGUAGES AND LITERATURES

1102 French

1102.101 Elementary French I 3 s.h.
(No prerequisites: open to students with no previous experience in 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.

1102.102 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 2 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 3 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 reading, 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: 1102.212 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) up 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 coordinator of international education 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.

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.

1105 Spanish

1105.101 Spanish I 3 s.h.

(No prerequisite: open to students with no previous experience in Spanish or waiver) 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.

1105.300 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, 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.

1105.321 Survey of Spanish Literature I 3 s.h.

(Prerequisite: 1105.320 or waiver)

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.

1105.322 Survey of Spanish Literature II 3 s.h.

(Prerequisite: 1105.320 or 1105.321 or waiver)

This course is a continuation of Spanish 321, covering works from the mid-eighteenth century to the beginning of the twentieth century

1105.323 Spanish-American Literature 3 s.h.

(Prerequisite: 1105.320 or waiver)

This course introduces the origin and growth of the prose and poetry of Spanish-American Literature, portraying the development of national trends.

1105.324 Spanish-American Civilization and Culture 3 s.h.

(Prerequisite: 1105.320 or waiver)

This course provides an introductory study of the political history, philosophy and customs of the Spanish-American countries.

1105.325 Readings in Contemporary Spanish Literature 3 s.h.

(Prerequisite: 1105.320 or waiver)

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.

1105.326 Spanish Novel 3 s.h.

(Prerequisite: 1105.320 or waiver)

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.

1105.327 Spanish-American Poetry 3 s.h.

(Prerequisite: 1105.320 or waiver)

Students are introduced to general trends in the poetry of Spanish America.

1105.328 Spanish-American Theatre 3 s.h.

(Prerequisite: 1105.320 or waiver)

This course introduces students to trends in the theatre, from pre-Columbian days to the present.

1105.381 Contemporary Spanish Theatre

3 s.h.

(Prerequisite: 1105.320 or waiver)

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 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 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 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 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 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 waiver)

Students will read representative works of the Spanish-American novel.

1105.435 Individual Study (Spanish)

1 to 8 s.h.

(Prerequisite: 1105.320, 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.

1105.481 The Generation of 1898

3 s.h.

(Prerequisite: 1105.320 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 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 coordinator of international education 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.

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.

1106.345 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.

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

1498.242 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 3 s.h.

(Prerequisite: 0506.302)

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.

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.

1500 English Language & Literature

1501 English (Composition & Rhetoric)

1501.105 Integrated College Composition 4 s.h.

(Prerequisite: Appropriate placement score or fulfillment of Developmental Writing requirements)

This 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.

1501.111 College Composition I 3 s.h.

(Prerequisite: Appropriate Placement Score or Fulfillment of Developmental Writing Requirements)

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.

1501.112 College Composition II 3 s.h.

(Prerequisite: 1501.111 or 1501.105)

College Composition II emphasizes critical thinking, reading, and writing as they relate to research and argumentation. Evaluation of information, 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.

1501.301 Writing, Research & Technology 3 s.h.

(Prerequisite: 1501.111, 1501.112)

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 online.

1501.320 Field Experience in Writing Arts 3 or 6 s.h.

(Prerequisite: Junior/Senior status)

Under professional supervision in the field, students practice theories and skills learned in the classroom.

1501.401 The Writer's Mind 3 s.h.

(Prerequisite: 1501.111, 1501.112)

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.

1501.405 Evaluating Writing 3 s.h.

(Prerequisite: 1501.111, 1501.112)

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.

1501.410 Independent Study in Writing Arts Program 3 or 6 s.h.

(Prerequisite: 60 hours completed)

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.

1501 English, General

1501.392 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 Literature, English

1502.101 Literary Studies 3 s.h.
(Prerequisite: 1501.111 or permission of instructor)
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.

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.

1502.200 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 Chaucer and Gawain, 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 Literature of the United States: Beginnings 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.

1502.214 Literature of the United States: Realism to the Present 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.

1502.393 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.

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 21-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 fig-

ures 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, Zola, Camus, Sartre, 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.

1506.405 Seminar in Communication Studies 3 s.h.

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.

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.

1509.220 Survey of Western Philosophy

3 s.h.

This course acquaints students with some of the major figures and ideas in the history of Western philosophy.

1509.221 Survey of Western Philosophy - WI

3 s.h.

(Prerequisite: 1501.112)

Same as 1509.220, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

1509.226 Philosophy of Mind

3 s.h.

This course addresses philosophical questions about the nature of the mind. Some of these questions include: What is the relationship between the mind and the body? Can science fully understand the mind? Are minds like computers? What type of minds do non-human animals have? Students will learn the responses of classical and contemporary philosophers to these questions. Students will also develop and refine their own views in response to these questions.

1509.227 Philosophy of Mind - WI

3 s.h.

(Prerequisite: 1501.112)

Same as 1509.226, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

1509.230 Symbolic Logic

3 s.h.

(Prerequisite: 1509.130 or consent of the instructor)

This advanced course in symbolic logic studies both sentential and quantificational techniques as well as the completeness and consistency of systems of natural deduction.

1509.240 Philosophy and Society

3 s.h.

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.

1509.241 Philosophy and Society - WI

3 s.h.

(Prerequisite: 1501.112)

Same as 1509.240, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

1509.250 Introduction to Ethics

3 s.h.

This historically structured course emphasizes both the nature of moral problems and the variety and adequacy of selected moral theories.

1509.251 Introduction to Ethics - WI 3 s.h.

(Prerequisite: 1501.112)

Same as 1509.250, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

1509.310 Aesthetics 3 s.h.

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.

1509.311 Aesthetics - WI 3 s.h.

(Prerequisite: 1501.112)

Same as 1509.310, but meets general education writing intensive guidelines with a variety of graded and ungraded writing assignments.

1509.322 Business Ethics 3 s.h.

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.

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.

1509.392 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.

1700 Mathematics

1701 Developmental 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, vec-

tor 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 his-

torical 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

1701 Mathematics-General

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.

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 statistical 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.

1702.360 Introduction to Probability and Statistics I 3 s.h.

(Prerequisite: 1701.131 and 1701.150 or permission of instructor)

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.

1702.361 Introduction to Probability and Statistics II 3 s.h.

(Prerequisite: 1702.360)

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.

1702.371 Statistical Design of Experiments I 3 s.h.

(Prerequisite: 1702.360, 1702.361 or Statistical Research Methods in Psychology I and II)

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.

1702.372 Statistical Design of Experiments II 3 s.h.

(Prerequisite: 1702.371)

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.

1703 Applied Mathematics

1703.125 Calculus: Techniques and Applications 3 s.h.

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.

1703.150 Discrete Mathematics 3 s.h.

(Corequisite: 1509.130)

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.

1703.160 Discrete Structures 3 s.h.

(Prerequisite: 1701.122 or permission of the department of mathematics or permission of the department of computer science)

This course covers mathematical topics essential for work in computer science. This material includes number bases, mathematical induction, sets, relations, functions, congruence, recursion, combinatorics, graphs, trees, logic, Boolean algebras, and proof techniques. While this is a course in mathematics, many of the examples and applications will be taken from computer science. The instructor may require use of a graphing calculator and/or computer. This course covers much of the same material as Discrete Mathematics (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 and 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 and 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.

1801 Military Science (R.O.T.C.)**1801.101 Intro to Military Science I 3 s.h.**

An introduction to the Army ROTC program. Course material includes an introduction to the organization and functions of the U.S. Army as a system and how the United States uses that system to provide for national security in war and peace. The course focuses on the national defense structure, organization of Army units, and customs and traditions of the Army. In addition, students will be introduced to the concepts of military leadership and management theories to prepare them to work with and lead others effectively and efficiently

toward the accomplishment of specific organizational goals and objectives. (No service obligation)

1801.102 Intro to Military Science II 3 s.h.

Continuation of 1801.101. Provides additional instruction in military-related subjects of general student interest. This course includes an introduction to the military writing requirements for the ROTC program, administering physical fitness programs, practical experience in military leadership, and first aid. (No service obligation)

1801.201 Fundamentals of Leadership I 3 s.h.

Basic concepts of leadership and organizational behavior. This course is designed to examine the basic leadership and management functions in relationship to individual and group behavior. Course work includes familiarization with the concepts of leadership, the different types of leadership power, exploration of individual needs and motivations, management skills and the decision-making process, and leadership styles. Orientation is toward the application of basic leadership and management theory and the analysis of factors which provide the foundation for organizational success. This course also introduces the student to advanced military skills and applied leadership techniques necessary to be an effective junior leader in the U.S. Army. (No service obligation)

1801.202 Fundamentals of Leadership II 3 s.h.

Continuation of 1801. 201. (No service obligation)

1801.301 Leadership and Management I 3 s.h.*(Prerequisite: 1801.101, 102, 201, 202)*

This course is designed to expose the student to tactical operations and teach the duties and responsibilities of small unit leaders. Course work includes planning, coordinating, and controlling small unit operations and preparation of oral and written operation orders. Emphasis is placed on troop leading procedures-training the student to lead and become proficient in analyzing mission received, determining a course of action, planning tasks, coordinating activities, controlling and supervising work, delegating appropriate missions to others, and successfully executing military operations.

1801.302 Leadership and Management II 3 s.h.*(Prerequisite: 1801.301)*

This course is designed to build on the technical and tactical operations taught in 1801.301. Emphasis is placed on developing and supervising small unit missions. All course work supports and prepares the student for Warrior Forge in the fol-

lowing summer. Additionally, students are given the opportunity to apply these skills and techniques during each class period, leadership laboratories, and field activities.

1801.401 Leadership Dimensions and Practice 3 s.h.

(Prerequisite: 1801.301, 302, or permission of the instructor)

This course is designed to introduce the student to the Army training philosophy and mission focused planning process. The student will learn how to prepare for and to conduct training, and how to conduct an after action review of a training session. The second portion of the course deals with leadership counseling and the ethical aspects of leadership, including the ethical decision making model, and the ethical challenges facing the military leader.

1801.402 Contemporary Military Policy 3 s.h.

(Prerequisite: 1801.401 or permission of the instructor)

The first part of this course covers military law. The course will present the full range of the judicial system used in the military and the appropriateness of judicial, non-judicial, and administrative procedures of maintaining good order and discipline in the service. The second portion of the course introduces the student to the Army personnel, logistics, and resource management systems; personal financial management; and the various support activities and agencies available to assist military units and individuals. The aim of the course is the final preparation of the student for his/her initial assignment as a United States Army Second Lieutenant after graduation.

1900 Physical Science

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.

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 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 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) 3 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 3 s.h.

(Prerequisite: 1902.300, 1902.325 or 1701.236 or 1701.231 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 1901.203, 1902.325 or 1701.236 or 1701.231 or permission of instructor)

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
(Lecture and Laboratory) 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 4 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 Introduction to 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 Introduction to 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.

1906.105 Advanced College Chemistry I 4 s.h.*(Prerequisite: 1701.122 or high school precalculus and one year minimum 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. We strongly suggest that science majors take this course instead of Chemistry I.

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. We strongly suggest that science majors take this course instead of Chemistry II.

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, 1909.350)*

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)*

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.

1908.401 Physical Chemistry II (Lecture) 3 s.h.*(Prerequisite: 1908.400)*

This is a continuation of 1908.400.

1908.402 Physical Chemistry Laboratory I 2 s.h.*(Prerequisite: enrollment in 1908.400 and 1909.350)*

Laboratory work in this course is designed to illustrate the principles of physical chemistry.

1908.403 Physical Chemistry Laboratory II 2 s.h.*(Prerequisite: enrollment in 1908.401)*

This course is a continuation of 1908.402.

1909 Analytical Chemistry**1909.250 Quantitative Analysis (Lecture and Lab) 4 s.h.***(Prerequisite: 1906.101 or 1906.106)*

This course provides lecture and laboratory experience in classical methods of gravimetric and volumetric analyses as well as electrical and spectroscopic analyses.

1909.410 Instrumental Methods (Lecture and Lab) 4 s.h.*(Prerequisite: 1909.350, 1908.401)*

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.

1911 Astronomy

1911.120 Introduction to Astronomy (Lecture and Lab) 4 s.h.

This course is a descriptive study of the universe that emphasizes the physical concepts that explain astronomical phenomena. The evolutionary, structural, and dynamical aspects of the solar system, stars, nebulae, galaxies, and the entire universe are discussed. The laboratory experience has both quantitative and qualitative components that include outdoor observations of night sky objects, daytime solar observations, and computer simulations. There is occasional evening viewing outside of class.

1911.209 Astronomy Research I 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.

1911.212 Astronomy Research II 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.

1911.221 Exploration of the Solar System 3 s.h.

In the study of planetary science, the students will explore geology, chemistry, physics and astronomy in their applications to the composition, dynamics, atmospheres, surfaces, and magnetospheres of objects within the solar system. The search for life or conditions suitable for life in other parts of the solar system is a driving force of solar system exploration., thus biology is incorporated as well. This course will help the student develop skills necessary to discuss and write about science.

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 planetary 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 3 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.

2000 Psychology

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 involves the study of the biosocial determinants of female behavior. Its topics include

the sexual differentiation of the brain, the development of gender identity and the impact of sex role stereotyping upon personality development.

2001.202 Combatting 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.

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 percep-

tual organization, aftereffects, perceptual illusions, and the real-world implications of these phenomena. This course contains a laboratory component that emphasizes the use of scientific methodologies in Perception. Only matriculated psychology majors may register for this course.

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.

2001.326 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, aftereffects, 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 Psychology

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.

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.

(Prerequisite: 2005.206 or permission of instructor)
 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 Kruskal-Wallis 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.

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

2010.315 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.

2100 Public Affairs and Services

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.

2105.115 Introduction to Corrections (RS) 3 s.h.
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.

2105.120 Introduction to Security 3 s.h.
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.

2105.205 Minorities, Crime and Justice 3 s.h.
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.

2105.210 Restorative Justice 3 s.h.
(Prerequisite: Three credits of Law and Justice classes (2105))

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.

2105.220 Victimology 3 s.h.

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.

2105.250 The Scholarship of Criminal Justice 3 s.h.

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.

2105.255 Criminal Law 3 s.h.

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.

2105.274 Criminal Justice and Community Relations 3 s.h.

This is a broad-based course on the relationship between the community and crime and the criminal. The course covers such topical areas as police-community relationships, the culture of the inner city, human service delivery systems, the role of citizen and business groups and the criminal justice system, and the

2105.275 Survey of Criminal Justice 3 s.h.

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. This course is designed for non-majors and for those who wish to minor in law and justice studies. This course is not to be taken by Law and Justice majors!

2105.276 Parole, Probation and Community Corrections 3 s.h.

A comprehensive review of the noninstitutional response to criminal behavior, this course covers probation, parole and community corrections in depth. It includes topics like work release, education release, half-way houses, drug and alcohol centers, legal aspects of these processes and the effectiveness of these programs.

2105.285 Criminal Investigation 3 s.h.

Students study the criminal investigation process. Analysis of problems encountered in interviewing, interrogating and investigating is included. The course covers investigative techniques that may be applied to investigative problems and develops application of criminal investigation theories to the administration of justice.

2105.290 Forensic Law 3 s.h.

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.

2105.305 Law and Evidence 3 s.h.

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.

2105.310 Criminal Jurisprudence 3 s.h.
(Prerequisite: 2105.255)

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.

2105.312 Trial Procedure and the Supreme Court 3 s.h.

This course deals with U.S. Supreme Court cases involving trial procedures: double jeopardy, self-incrimination, jury trials, plea bargaining, etc., emphasizing present law in these areas and pro-

viding insight on the workings and philosophies of the Supreme Court in regards to these procedures.

2105.315 Criminal Justice and Social Conflict 3 s.h.

This course covers the major crises in our basic American institutions. Students examine the various aspects of social mobility, population explosion, social stratification, sex revolution, militarism, and the generation gap as they relate to problems of social justice in our society.

2105.320 Civil Aspects of Law Enforcement 3 s.h.

Students undertake an analysis of those areas in civil law with which law enforcement professionals frequently encounter. Topics include family law, torts, administrative and environmental issues, property disputes, liens, business and consumer transactions.

2105.322 Drugs and Crime in America 3 s.h.

This course explores and analyzes the relationship between illegal drugs and crime and all the relevant issues and ramifications. These include, but are not limited to: national and international trafficking, control of the problem, legalization, and explanations for drug use.

2105.324 Sentencing and the Rights of the Convicted 3 s.h.

Students explore, analyze, and critique the relevant structures, processes, and impacts of criminal sentencing and sentences. The course is designed to examine critically the relevant political, philosophical and social driving forces of change and their impacts on the system and society.

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 Police Procedure and the Supreme Court 3 s.h.

Students discuss and analyze recent U.S. Supreme Court cases in the area of police procedures: confessions, searches and seizures, wiretaps, stops-and-frisks, etc., emphasizing present law in these areas and providing insight in the workings and philosophies of the Supreme Court in regards to these procedures.

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.

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: 2105.250, 2105.255, 2105.380, Senior Standing)

This seminar will cover topics relating to how law and justice are put into practice by the police, courts, and corrections system. Important issues affecting society and the criminal justice system as a whole will be examined in depth. Students will be expected to read scholarly work exploring these issues; participate in class discussions; conduct library research; write short, informal memos and a senior level research paper; present oral reports on their research; and demonstrate their understanding of assigned readings and the research reported by classmates in a final examination.

2200 Social Sciences

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 5 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 culture.
- 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 increases cross-cultural definitions of disease and treatment. The course will survey, at an introductory level, the history and distribution of illness and the culturally prescribed attitudes toward disease and its treatment. 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.
- 2202.310 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-populational 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.

- 2202.321 Cultural Ecology** 3 s.h.
(Prerequisite: 2202.202)

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.

- 2202.322 Sex and Sex Roles in a Cross Cultural Perspective** 3 s.h.

(Prerequisite: 2202.202)
 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.

- 2202.323 Anthropology of Magic and Religion in Primitive, Tribal, and Peasant Cultures** 3 s.h.

This course stresses a cross-cultural comparative approach to the study of primitive, 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.

- 2202.326 The Maya** 3 s.h.
(Prerequisite: 2202.202 or 2202.310)

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.

2202.350 Comparative Cultures 3 s.h.

Students conduct a survey and comparative study of a variety of cultures around the world, analyzing both cultural forms and the methods used by anthropologists to study them.

2202.370 Peasant Societies and Cultures of the World 3 s.h.

(Prerequisite: 2202.202)

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.

2202.371 Anthropological Approaches to Culture Change 3 s.h.

(Prerequisite: 2202.202 or 2208.120)

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.

2202.491 Independent Study in Anthropology 3 s.h.

(Prerequisite: permission of instructor)

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.

2202.492 Undergraduate Research Seminar in Anthropology 3 s.h.

(Prerequisite: permission of instructor)

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 both 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, and 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.

2204.302 Intermediate Microeconomics 3 s.h.
(Prerequisite: 2204.102 or instructor's permission)

This course analyzes factor price determination, general equilibrium, capital theory and optimal income distribution.

2204.303 Principles of Economics: Global Perspective 3 s.h.

This course analyzes the market system and alternative mechanisms for determining prices and allocating resources. Pure competition, monopolistic competition, oligopoly and monopoly are examined. Additionally, the determinants of aggregate employment and national income, money, banking, monetary policy, international trade and finance are analyzed. This course is not available to economics majors.

2204.305 Money and Banking 3 s.h.
(Prerequisite: 2204.101 or instructor's permission)

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.

2204.307 Economic Development M/G 3 s.h.
(Prerequisite: 2204.101, 2204.102 or instructor's permission)

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.

2204.310 Global Economics 3 s.h.
(Prerequisite: 2204.101, 2204.102 or instructor's permission)

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.

2204.315 Public Finance 3 s.h.
(Prerequisite: 2204.102, 2204.102 or instructor's permission, 2204.101)

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.

2204.320 Contemporary Economic Systems M/G 3 s.h.

(Prerequisite: 2204.101, 2204.102 or instructor's permission)
 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.

2204.324 Centrally Planned Economies 3 s.h.
(Prerequisite: 2204.101, 2204.102 or instructor's permission)

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.

2204.330 Government and Business 3 s.h.
(Prerequisite: 2204.102 or instructor's permission)

This course applies microeconomic theories to selected policies toward business. This course may not be offered annually.

2204.340 Regional Economics of Southern New Jersey 3 s.h.

(Prerequisite: 2204.101 or 2204.102 or instructor's permission)
 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 permissions)

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.

2205.120 World History Since 1500 3 s.h.

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.

2205.150 United States to 1865 3 s.h.

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.

2205.151 United States Since 1865 3 s.h.

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.

2205.213 Islamic Civilization 3 s.h.

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.

2205.218 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.

2205.220 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.

2205.221 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.

2205.231 Modern Middle East 3 s.h.

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.

2205.251 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.

2205.260 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.

2205.261 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.

2205.268 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 black man's contribution to the building of America.

2205.269 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.

2205.270 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.

2205.271 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.

2205.272 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.

2205.280 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.

2205.299 Introduction to Historical Methods 3 s.h.

(Prerequisite: History majors or minors)

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.

2205.300 Ancient Mediterranean World 3 s.h.

(Prerequisite: 2205.100)

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.

2205.301 The American Revolution and Early Republic, 1775-1820 3 s.h.

(Prerequisite: 2205.150)

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.

2205.302 Sport in History 3 s.h.

(Prerequisite: 2205.120 or 2205.151 or 2205.101)

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.

2205.303 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.

2205.305 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.

2205.310 Medieval Europe 3 s.h.

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.

2205.317 Arab-Israeli Conflict 3 s.h.

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.

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.

2205.325 U.S. Labor History 3 s.h.*(Prerequisite: 2205.150, 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.

2205.326 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.

2205.330 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.

2205.335 History of World War II 3 s.h.

(Prerequisite: 2205.101 or 2205.120 or 2205.151)
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.

2205.337 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.

2205.354 Chinese Cultural History 3 s.h.

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.

2205.360 Latin American Revolutions and Reform 3 s.h.

(Prerequisite: 2205.261)
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.

2205.362 History of Mexico and the Caribbean 3 s.h.

(Prerequisite: 2205.261)
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.

2205.370 Topics in Latin American History 3 s.h.

(Prerequisite: 2205.261)
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.

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.

2205.380 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.

2205.382 Jewish Holocaust 1933-1945 3 s.h.

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.

2205.388 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.

2205.393 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.

2205.395 Twentieth Century African Nationalism 3 s.h.*(Prerequisite: 2205.270)*

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.

2205.396 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.

2205.405 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.

2205.410 European Intellectual History Since the 16th Century 3 s.h.*(Prerequisite: 2205.101)*

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.

2205.412 Intellectual History of the U.S. 3 s.h.*(Prerequisite: 2205.150, 2205.151)*

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 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.

2205.418 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.

2205.430 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.

2205.433 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's late nineteenth and early twentieth century transformation into a modern society characterized by dynamic politics and fluid cultural forms. This course may not be offered annually.

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.

2205.442 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.

2205.455 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.

2205.492 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

2206.101 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. It emphasizes the analysis and world distributional patterns of landforms, climate, vegetation, soils and water features and the causes and interrelationships of these patterns.

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 real 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. It emphasizes the analysis of world distributional patterns of landforms, climate, vegetation, soils, and water features, and the 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 Sciences 3 s.h.
This course provides the student with the conceptual tools required for intelligent and critical use and interpretation 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.

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 real 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 interrelation-

ships 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, as well as LANDSAT and SKYLAB products.

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.

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 (IBM PS/2).

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: 1914.100 or 2206.101)

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 Introduction to Geographic Information Systems 3 s.h.

Introduction to Geographic Information Systems (GIS) 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 Advanced Geographic Information Systems 3 s.h.

Advanced Geographic Information Systems 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.

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 ana-

lyzes 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.

2207.360 Methodology and Statistics in Political Science Research 3 s.h.

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.

2207.370 Special Topics in Political Science 3 s.h.

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.

2207.375 Politics and the Judicial Process 3 s.h.

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.

2207.400 American Political Thought 3 s.h.

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.

2207.401 Contemporary Political Thought 3 s.h.

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.

2207.410 Selected Problems in Constitutional Law 3 s.h.

(Prerequisite: 2207.310 or permission of instructor)
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.

2207.415 In-depth Study of the Current Supreme Court 3 s.h.

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.

2207.420 International Law 3 s.h.

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.

2207.421 International Organizations 3 s.h.

This course studies the League of Nations, the United Nations and other international and regional organizations in relation to such functions as peace-keeping, conflict resolution, international consensus-building, etc. This course may not be offered annually.

2207.489 Seminar in Political Science - WI 3 s.h.

(Prerequisite: Senior standing, Political Science major, completion of 2207.360)

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.

2207.490 Seminar in Political Science 3 s.h.

(Open only to senior political science majors)

This course stresses careful reading and research in primary and secondary material related to selected problems in political science. Primary emphasis will be on writing a critical and analytical paper.

2207.491 Independent Study in Political Science 3 s.h.

This course focuses on individual projects under the guidance of a faculty member; it cannot be used as a substitute for a course offered by the department. This course may not be offered annually.

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.

2208.326 The Socialization of The Child Through Adolescence - WI 3 s.h.

(Prerequisite: 2208.120 or 2208.220)

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.

2208.327 Comparative Education in Sociological Perspective 3 s.h.

(Prerequisite: 2208.120 or permission of instructor)

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.

2208.330 Social Stratification 3 s.h.
(Prerequisite: 2208.120)

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.

2208.331 Classical Sociological Theory 3 s.h.
(Prerequisite: 2208.120 & 3 hrs. in sociology)

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)

2208.332 Contemporary Sociological Theory 3 s.h.
(Prerequisite: 2208.120, 2208.331)

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.

2208.333 Sociology of Work 3 s.h.
(Prerequisite: 2208.120)

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.

2208.336 Sociology of Education 3 s.h.
(Prerequisite: 2208.120 or permission of instructor)

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.

2208.339 Sociological Practice 3 s.h.
(Prerequisite: 2208.120)

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 rudiments of basic types of data analysis and interpretation. Students will learn to read and summarize basic scientific reports, to critically analyze and evaluate reported research findings in the social sciences, and to recognize ethical concerns associated with sociological research. (Required for Sociology majors)

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 communality 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.

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: senior standing, 2208.331, 2208.421 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 the 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 hrs. in sociology or permission of the 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 hrs. 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.

4900 Interdisciplinary

4901 Liberal Arts and Sciences

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.

4901.103 Introduction to African American Studies 3 s.h.

This course introduces students to the interdisciplinary field of African American Studies, from the perspective of the experiences and scholarly and creative contributions of Africans and African descendants to the making of the modern world. The primary goal in the course is 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, both within American society 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.

4901.200 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 Computer and Society 3 s.h.
(Prerequisite: 1501.112)

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.

4901.266 Computer and Society - WI 3 s.h.
(Prerequisite: 1501.112)

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.

4901.350 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.

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.

4902 Math and Science

4902.315 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.

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

- BAO, DA-HSIEN (1995)**Professor
B.S., Fu Jen Catholic University; M.B.A., Ph.D., University of Southern California
- CHUNG, SHIFEI (1997)**Associate Professor
B.S., National Taiwan University; M.S., University of Wisconsin-Madison; CPA; Ph.D., University of Memphis
- GADAROWSKI, CHRISTOPHER (2003)**Assistant Professor
B.S., University of Arizona; M.B.A., University of Rochester; Ph.D., Arizona State
- HUGHES, DIANE (1987)**Assistant Professor
B.A., Rutgers College; M.B.A., Long Island University; J.D., Rutgers University
- ISIK, IHSAN (2001)**Assistant Professor
B.S., Middle East Technical University; M.S., Texas Tech University, M.A., Ph.D., University of New Orleans
- KYJ, LARISSA (1992)**Professor
B.A., Fordham; M.A., Ph.D., Columbia University; CPA; CMA
- MARMON, RICHARD (1986)**Associate Professor
B.S., Glassboro State College (Rowan); M.B.A., LaSalle University; J.D., Widener University; CPA; CMA
- MERIC, GULSER (1987)**Professor
B.A., Ankara University; M.S., Ph.D., Lehigh University
- PRITCHARD, ROBERT (1971)**Professor
B.S., M.B.A., Drexel University; M.A., Ed.D., University of Pennsylvania
- ROMEO, GEORGE (1979)**Professor
B.S., Rider College; M.S., Loyola College; Ph.D., Drexel University; CPA, CIA, CMA
- WEIDMAN, STEPHANIE M. (1995)**Associate Professor
B.S., University of Delaware; M.B.A., Duke; Ph.D., Drexel University; CMA
- WELSH, CAROL (1983)**Assistant Professor
B.S., M.B.A., Drexel University; CPA, CIA

Art

- ADELSON, FRED (1974)**Professor
B.A., Univ. of Massachusetts; M.A., M.Phil., Ph.D., Columbia University
- APPELSON, HERBERT (1967)**Professor
B.A., Brooklyn College; M.S., M.F.A., Univ. of Wisconsin; Ed.D., Columbia University
- BOWMAN, SUSAN (2002)**Assistant Professor
B.F.A., San Francisco Art Institute; M.F.A., Rutgers University
- CHARD, DANIEL (1968)**Professor
B.F.A., Univ. of South Dakota; M.A., Northern State College; Ed.D., Columbia University
- GALLINELLI, JOHN (1969)**Professor
B.Ed., Keene State College; Ph.D., University of Maryland
- GRAZIANO, JANE E. (1999)**Assistant Professor
B.S., University of Illinois; M.A., Rowan College; Ed.D., Teachers College, Columbia University

- HART, JOHN PHILLIP (2001)**Assistant Professor
B.F.A., Lynn Academy of Fine Art; M.F.A., University of Michigan
- MITZEN, NANCY (1994)**Assistant Professor
B.A., Columbia College; M.A. New York Institute of Technology; M.F.A., Temple University
- MURASHIMA, KUMIKO (1971)**Associate Professor
B.F.A., Women's College of Fine Arts (Tokyo); M.F.A., Indiana University; Certificate in Textile Design, Parsons School of Design
- OHANIAN, NANCY L. (1992)**Professor
B.F.A., Layton School of Art and Design; M.F.A., Pratt Institute
- PASSMORE, KAYE LEISSNER (2003)**Assistant Professor
B.A., M.A., Texas Tech University; Ed. D. Boston University
- THOMAS, SKEFFINGTON N. (1997)**Associate Professor
B.A., Lewis and Clark College; M.F.A., Southern Illinois University
- TRAVIS, WILLIAM (1971)**Assistant Professor
B.F.A., Philadelphia College of Arts; M.F.A., Temple University
- VACCARO, DAVID E. (2003)**Assistant Professor
B.F.A. Edinboro State University; M.F.A. University of Tennessee

Biological Sciences

- FARISH, DONALD J. (1998)**Professor
B.Sc., University of British Columbia; M.S., North Carolina State University; Ph.D., Harvard University; J.D., University of Missouri
- GROVE, MICHAEL W. (2001)**Assistant Professor
B.S., The Ohio State University; Ph.D., University of South Carolina
- HECHT, GREGORY B. (1995)**Assistant Professor
B.S., University of Rochester; M.A., Ph.D., Princeton University
- HOLBROOK, LUKE T. (1999)**Assistant Professor
B.S., Fordham University; M.S., Ph.D., University of Massachusetts
- HOUGH, GERALD (2003)**Assistant Professor
B.S., Purdue University; M.S., Ph.D., The Ohio State University
- IFTODE, CRISTINA (2001)**Assistant Professor
B.S., M.S., University of Bucharest; M.S., Ph.D., New York University-Medical Center
- KRUFKA, ALISON (2003)**Assistant Professor
B.S., College of William and Mary; Ph.D., University of Wisconsin-Madison
- MEAGHER, RICHARD (1969)**Professor
B.S., M.S., Fairleigh Dickinson University; Ph.D., St. Bonaventure University
- MOSTO, PATRICIA (1993)**Professor
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
- O'BRIEN, TERRY (2000)**Assistant Professor
B.S., M.S., University of Iowa; Ph.D. University of California - Berkeley
- PRIETO, ANDREW (1971)**Professor
B.A., Rutgers University; M.S., New Mexico State University; Ph.D., University of Missouri
- RICHMOND, COURTNEY E. (2001)**Assistant Professor
B.A., Swarthmore College; Ph.D., University of South Carolina

SCOTT, JOANNE (1989)Associate Professor
B.S., Bucknell University; M.A., Lehigh University; M.S., Bucknell University; Ph.D., University of Texas, Medical Branch at Galveston

TAHAMONT, MARIA (1993)Professor
B.A., Rowan University; M.S.Ed., Southern Illinois University; Ph.D., Southern Illinois University

Chemistry & Biochemistry

BISHOP, KARL (2004)Assistant Professor
B.A., Western State University; Ph.D., Syracuse University

CHA, YUN-HWAN (2003)Assistant Professor
B.S. and M.S., Konkuk University-Seoul; Ph.D., University of Tokyo

FRAZEE, RICHARD (2003)Assistant Professor
B.S., University of Michigan-Flint; Ph.D., University of Minnesota

LEDER, GEORGE (1972)Assistant Professor
B.S., Brooklyn College; Ph.D., Rutgers University

NEWLAND, ROBERT (1983)Professor
B.A., Kalamazoo College; Ph.D., Wayne State University

RAMANUJACHARY, KANDALAM V (1994)Professor
B.S., Andhra University; M.S., Andhra University; Ph.D., Indian Institute of Technology

SCHULTZ, CHARLES (1970)Professor
B.S., University of Michigan; M.S., Ohio State University; Ph.D., University of Michigan

YANG, CATHERINE (1995)Professor
B.S., Zhejiang University; M.S., Ph.D., Tufts University

College of Engineering

CHANDRUPATLA, TIRUPATHI R (1995)Professor
B.E., Osmania University, India; M. Tech. Design and Production, Indian Institute of Technology (India); Ph.D., University of Texas at Austin

CHEN, JOHN C. (1998)Associate Professor
B.S., University of Virginia; M.S., Ph.D., Stanford University

CHIN, STEVEN (1997)Associate Professor/Associate Dean
B.S., Rutgers University; M.S., The John Hopkins University; Ph.D., Rutgers University

CLEARY, DOUGLAS B. (1998)Associate Professor
B.S., M.S., Ph.D., Purdue University

CONSTANS, ERIC W. (1999)Assistant Professor
B.S., University of Washington; M.S., Ph.D., Pennsylvania State University

DAHM, KEVIN D. (1999)Assistant Professor
B.S., Worcester Polytechnic; Ph.D., Massachusetts Institute of Technology

DORLAND, DIANNE (2000)Dean/Professor
B.S., M.S., South Dakota School of Mines and Technology; Ph.D., West Virginia University

DUSSEAU, RALPH A. (1995)Professor
B.S., M.S., Ph.D., Michigan State University

EVERETT, JESS W. (1998)Professor
B.S., M.S., Ph.D., Duke University

- FARRELL, STEPHANIE (1998)**.....Associate Professor
B.S., University of Pennsylvania; M.S., Stevens Institute of Technology; Ph.D., New Jersey Institute of Technology
- GABLER, CLAY (1998)**Associate Professor
B.S., M.E., University of Virginia; Ph.D., Princeton University
- GEPHARDT, ZENAIDA OTERO (1989)**Associate Professor
B.S., Northwestern University; M.S., Ph.D., University of Delaware
- HEAD, LINDA M. (1998)**Associate Professor
B.S., M.S., Ph.D., University of South Florida
- HESKETH, ROBERT PAUL (1996)**Professor
B.S., University of Illinois, Champaign-Urbana; Ph.D., University of Delaware
- JAHAN, KAUSER (1996)**Associate Professor
B.S., Engineering University, Bangladesh; M.S., University of Arkansas; Ph.D., University of Minnesota
- JANSSON, PETER MARK (2001)**.....Associate Professor
B.S., Massachusetts Institute of Technology; M.S., Rowan University; Ph.D., University of Cambridge
- KADLOWEC, JENNIFER A. (1999)**Assistant Professor
B.S., Baldwin-Wallace College; M.S., Ph.D., University of Michigan
- KRCHNAVEK, ROBERT R. (1998)**Associate Professor
B.S., Marquette University; M.S., California Institute of Technology; Ph.D., Columbia University
- LEFEBVRE, BRIAN G. (2004)**.....Assistant Professor
*B.S., University of Minnesota
 Ph.D., University of Delaware*
- MANDAYAM, SHREEKANTH A. (1997)**Associate Professor
B.E., Bangalore University, India; M.S., Ph.D., Iowa State University
- MARCHESE, ANTHONY J. (1996)**Associate Professor
B.S., M.S., Rensselaer Polytechnic Institute; Ph.D., Princeton University
- MEHTA, YUSUF A. (2001)**Assistant Professor
B.S., University of Bombay, India; M.S., University of Oklahoma; Ph.D., Pennsylvania State University
- NEWELL, JAMES (1998)**Associate Professor
B.S., Carnegie-Mellon University; M.S., Penn State University; Ph.D., Clemson University
- ORLINS, JOSEPH J. (1999)**Assistant Professor
B.S., University of Washington; M.S., Ph.D., University of Minnesota
- POLIKAR, ROBI (2001)**.....Assistant Professor
B.S., Istanbul Technical University; M.S., Ph.D., Iowa State University
- RAMACHANDRAN, RAVI PRAKASH (1997)**Associate Professor
B.Eng., Concordia University; M.Eng., Ph.D., McGill University
- RIDDELL, WILLIAM (2004)**.....Assistant Professor
B.S., University of Massachusetts-Amherst; Ph.D., Cornell University
- SAVELSKI, MARIANO J. (1999)**Assistant Professor
B.S., University of Buenos Aires; M.S., University of Tulsa; Ph.D., University of Oklahoma
- SCHMALZEL, JOHN L. (1995)**.....Professor
B.S., M.S., Ph.D., Kansas State University
- SLATER, C. STEWART (1995)**Professor
B.S., M.S., M. Ph., Ph.D., Rutgers University

FACULTY

- SUKUMARAN, BEENA (1998)**.....Associate Professor
B.S., Trivandrum Engineering College, India; M.S., Auburn University; Ph.D. Purdue University
- TANG, YING (2002)**.....Assistant Professor
B.S., M.S., Northeastern University, China; Ph.D., New Jersey Institute of Technology
- VON LOCKETTE, PARIS R. (1999)**.....Assistant Professor
B.S., Trinity University; M.S., Ph.D., University of Michigan
- ZHANG, HONG (2000)**.....Assistant Professor
B.S., Tsinghua University, China; M.S., Ph.D., University of Pennsylvania

Communication Studies

- ALBONE, KENNETH (1982)**.....Assistant Professor
B.S. Lake Superior State College; M.A., Miami University; Ph.D., Bowling Green State
- ARNOLD, LORIN B. (1998)**.....Associate Professor
B.A., M.A., Ph.D., Purdue University
- BENAVIDEZ, HARRIET (2000)**.....Instructor
B.A., Purdue University; M.A., University of Hawaii
- CORISON, CYNTHIA (1984)**.....Associate Professor
B.A., Lewis and Clark College; M.A., Ph.D., University of Oregon
- CYPHER, JOY M. (2000)**.....Assistant Professor
B.A., Loyola University, Chicago; M.A., Ph.D., Purdue University
- HAYNES, JULIE A. (1998)**.....Assistant Professor
B.A., University of Richmond; M.A., Texas A&M University; Ph.D., Pennsylvania State University
- IKPAH, MACCAMAS M. (1994)**.....Assistant Professor
B.A., Eastern Washington University; M.E., Gonzaga University; Ed.D., Oklahoma State University
- SCHOWALTER, DANIEL F. (2003)**.....Assistant Professor
B.S., University of Wisconsin-Stevens Point; M.A., University of Arkansas; Ph.D., Indiana University
- STREB, EDWARD (1979)**.....Professor
B.S., M.A., Ph.D., Northwestern University

Composition and Rhetoric

- BATEMAN, LINDA (1979)**.....Instructor
B.A., M.A., Rowan University
- DONAHUE, MARY LEE (1983)**.....Instructor
B.A., University of Tennessee; M.A., University of Connecticut
- GIAMPALMI, JOSEPH J (1998)**.....Assistant Professor
B.A., M.Ed., Widener University, Ed.D Temple University
- HAN, AIGUO (1993)**.....Assistant Professor
B.A., Xian Foreign Language University; M.A., Ph.D., Indiana University of Pennsylvania
- HARVEY, ROBERTA K (1998)**.....Assistant Professor
B.A., M.A., Univ. of North Dakota; Ph.D., Univ. Wisconsin-Milwaukee
- HERBERG, ERIN V. (2000)**.....Assistant Professor
B.S., B.A., Western Carolina University; M.A., Ph.D., Georgia State University
- HUTTO, DAVID (2000)**.....Assistant Professor
B.A., West Virginia University; M.A., Purdue University; M.A., Western Carolina University; Ph.D., Georgia State University

- ITZKOWITZ, MARTIN (1989)**.....Associate Professor
B.A., Brooklyn College; M.A., Ph.D., New York University
- JOHNSON, FRANCES S. (1996)**.....Associate Professor
B.A., Christopher Newport University; M.A. Old Dominion; Ph.D., Univ. of Oklahoma
- MANNION, SUSAN (1980)**.....Instructor
B.A., College of New Jersey; M.A. Rowan University
- MARTIN, DEBBIE (2003)**.....Assistant Professor
B.S., Western Michigan University; M.A., Ph.D., Texas Woman's University
- MAXSON, JEFFREY N. (1994)**.....Assistant Professor
B.A., Yale University; M.A., Ph.D., University of California at Berkeley
- PENROD, DIANE (1976)**.....Associate Professor
B.S., Medaille College; M.A., Ph.D., Syracuse University
- ROWAN, JANICE (1976)**.....Professor
B.A., Rutgers University; M.A., University of Michigan
- SMITH, SANDRA R (2003)**.....Instructor
B.A., University of Redlands; M.A., Rutgers University
- STOLL, DONALD (1992)**.....Assistant Professor
B.A., Valparaiso University; M.F.A., University of Texas at Austin; Ph.D., Indiana University
- TWEDIE, SANFORD M. (1994)**.....Associate Professor
B.A., University of Michigan; M.A., Eastern Michigan University; Ph.D., University of Wisconsin-Milwaukee
- WOOD, JOYCE (1972)**.....Instructor
B.S., Millersville University; M.A., New York University
- ZEHNER, ROBERTA (1990)**.....Instructor
A.B., Rosemont College; M.A., Glassboro State College (Rowan)

Computer Science

- AMER, KHALED (1983)**.....Assistant Professor
B.S., Cairo Univ.; M.S., Concordia Univ.; M.S., Ph.D., University of Waterloo.
- BALIGA, GANESH R. (1993)**.....Professor
B. Tech., M. Tech., Indian Institute of Technology (Bombay); M.S., Ph.D., University of Delaware
- BERGMANN, SETH (1980)**.....Associate Professor
B.S., Rensselaer Polytechnic Institute; M.S.E., University of Pennsylvania.
- CRICLOW, JOEL MCLAREN (2001)**.....Associate Professor
B.A., University of Guyana, M.Sc, Ph.D., University of the West Indies
- HARTLEY, STEPHEN J. (2000)**.....Associate Professor
B.A., Washington College, M.S., Ph.D. University of Virginia
- HNATYSHIN, VASIL YAROSLAV (2003)**.....Assistant Professor
B.S., Widener University; M.S., Ph.D., University of Delaware
- HRISTESCU, GABRIELA (2000)**.....Assistant Professor
B.S., Polytechnic Institute of Bucharest (Romania); M.S., Ph.D., Rutgers University.
- KAY, JENNIFER S. (1998)**.....Associate Professor
B.A., B.S.E., University of Pennsylvania; M.S., Ph.D., Carnegie Mellon University
- LOBO, ANDREA F. (1997)**.....Associate Professor
B.S., Universidad de Costa Rica; M.S., Ph.D., University of Delaware

- PROVINE, DARREN F. (2000)**.....Instructor
B.S., University of Maryland-College Park, M.A., Rowan University
- RUSU, ADRIAN S. (2003)**.....Assistant Professor
B.S., M.S., University of Craiova, Romania; M.S., Ph.D., University at Buffalo
- SYPNIEWSKI, BERNARD PAUL (1998)**.....Assistant Professor
J.D., Seton Hall
- TINKHAM, NANCY L. (1990)**.....Assistant Professor
B.S., Wheaton College; Ph.D., Duke University
- WEISS, LEIGH (1968)**.....Associate Professor
B.S., M.S., Buffalo State University
- XU, JIANNING (1988)**.....Associate Professor
B.S., Harbin Inst. of Technology (China); M.S., Ph.D., Stevens Inst. of Technology

Economics

- JAM, HABIB (1979)**.....Associate Professor
B.A., M.A., Texas Tech University; Ph.D., Southern Illinois University
- MUKHOTI, BELA (1974)**.....Professor
B.A., M.A., Calcutta University, India; Ph.D., London School of Economics
- REAVES, NATALIE D. (1998)**.....Associate Professor
B.S., Rutgers University; M.S., University of North Carolina; Ph.D., Wayne State University

Educational Leadership

- CAMPBELL JONES, FRANKLIN (2003)**.....Assistant Professor
B.A., University of California, Santa Cruz; M.A., Ed.D., University of San Francisco
- CAPASSO, RONALD (1996)**.....Associate Professor
B.A., M.A., Montclair State College; Ed.D., Teachers' College, Columbia University
- COAXUM, JAMES (1999)**.....Assistant Professor
B.S., Morehouse College, Ed.M., Harvard University; Ph.D., Vanderbilt University
- DOOLITTLE, VIRGINIA (1999)**.....Assistant Professor
B.A., Miami University; Ed.M., SUNY Buffalo; Ph.D., State University of NY at Buffalo
- GALLIA, THOMAS - COORDINATE APPOINTMENT (1970)**.....Professor
B.A., M.A., M.A., Glassboro State College (Rowan), Ed.D., Rutgers University
- HESPE, DAVID C. (2001)**.....Associate Professor
B.A., Rutgers University; J.D., Rutgers University School of Law
- JAMES, HERMAN D. (1982)**.....Distinguished Professor
B.S., Tuskegee Institute; M.A., St. John's University; Ph.D., University of Pittsburgh
- JOHNSTON, CHRISTINE (1989)**.....Professor
B.A., M.A., University of Wisconsin; Ed.D., Rutgers University
- MONAHAN, THOMAS (1984)**.....Professor
B.A., LeMoyne College; Ed.M., Ed.D., Rutgers University
- RUSCH, EDITH A. (1997)**.....Associate Professor
B.A., University of Wisconsin; M.S., University of Northern Colorado; Ph.D., University of Oregon
- SERNAK, KATHLEEN S. (1998)**.....Associate Professor
B.A., St. Olaf College; M.A., University of South Dakota; Ph.D., Michigan State University

- SISCO, BURTON R. (1998)**Professor
B.A., M.Ed., University of Vermont; Ed.D., Syracuse University
- WALPOLE, MARYBETH (2000)**.....Assistant Professor
B.A., Wells College; M.A., Stanford University; Ph.D., UCLA

Elementary/Early Childhood Education

- BAE-SUH, SOYOUN (2003)**.....Assistant Professor
B.A., Ewha Women's University; M.Ed., University of Pittsburgh; Ph.D., University of Illinois
- BROWNE, SUSAN (2002)**Assistant Professor
B.A., Temple University; M.A., Cheyney University; Ed.D., University of Pennsylvania
- CALLIARI, CARL (1968)**.....Professor
B.A., M.A., Glassboro State College; Ed.D., Temple University
- CALLIARI, SHARON G. (1998)**.....Assistant Professor
B.S., Keene State College; M.Ed., University of Maryland; J.D., Rutgers University
- FAISON, CHRISTY (1987)**.....Professor
B.S., Hampton Institute; M.A., The Ohio State University; Ed.D., Temple University
- MCBEE, ROBIN H. (1996)**Associate Professor
B.A., University Without Walls/Providence; M.Ed., Lesley College; Ph.D., Virginia Commonwealth University
- MOLINARI, LOUIS (1967)**Associate Professor
B.A., Wagner College; M.A., Glassboro State College; Ed.D., Temple University
- MOSS, JANET G. (1992)**Associate Professor
B.S., Northwestern University; Ed.M., Harvard University; Ed.D., U.C.L.A.
- PATTERSON, GARY (1971)**.....Assistant Professor
B.A., Juniata College; M.A., Glassboro State College
- ROBINSON, RANDALL (1965)**.....Associate Professor
B.S., Ohio State University; M.S., University of Pennsylvania; Ed.D., Temple University
- RODRIGUEZ, YVONNE (1973)**.....Professor
B.A., Rutgers University; M.A., Glassboro State College; Ed.D., Temple University
- SHARP, CAROL (1987)**.....Dean/Professor
B.A., Glassboro State College; M.A., William Paterson College; Ph.D., Penn State University
- SJOSTROM, BARBARA R. (1992)**.....Professor
B.A., M.S., Ph.D., State University of New York
- SORRENTINO, CARMELA (1965)**.....Assistant Professor
B.S., West Chester State College; M.Ed., Temple University
- SUDECK, MARIA R (2001)**Assistant Professor
B.S., Trenton State College; M.Ed., Ph.D., Temple University
- TABER, SUSAN B. (1996)**Associate Professor
B.A., M.A., Stanford University; Ph.D., University of Delaware
- WASHINGTON, JUDY (1971)**.....Associate Professor
B.A., Brooklyn College; M.Ed., Ed.D., Temple University
- WESTCOTT, PATRICK (2003)**.....Assistant Professor
B.A., University of Minnesota; M.A., University of Connecticut; M.A., Fairleigh Dickinson University; Ed.D., Columbia University

FACULTY

- WINTHER, AUSTIN A. (1998)**.....Assistant Professor
B.S., Illinois Institute of Technology; M.S. Ed., Ph.D., Southern Illinois University
- WYLIE, GWYNNE LORRAINE (2000)**.....Assistant Professor
B.S., East Carolina University; M. Ed., Ed.D., Widener University

English

- CARB, NATHAN (1959)**.....Professor
B.A., College of William and Mary; M.A., Ph.D., University of Pennsylvania
- COULOMBE, JOSEPH LOUIS (2001)**Assistant Professor
B.A., University of St. Thomas; M.A., Ph.D., University of Delaware
- KILPATRICK, KATHY P. (1996)**Assistant Professor
B.A., Barnard College; M.A., Florida A&M University; Ph.D., Emory University
- MCCANNON, AFRODESIA (2002)**Assistant Professor
B.A., Oberlin College; M.A., Ph.D., University of California Berkeley
- PARRISH, CATHERINE W. (1992)**.....Assistant Professor
B.A., Chatham College; M.A., Ph.D., University of Virginia
- PATRICK, BARBARA C. (1991)**.....Associate Professor
B.A., M.A., Ph.D., University of North Carolina at Chapel Hill
- TALLEY, LEE (2002)**.....Assistant Professor
B.A., Cornell University; M.A., Ph.D., Princeton University
- VIATOR, TIMOTHY J. (1994)**.....Professor
B.A., M.A., University of Louisiana; Ph.D., Auburn University
- VITTO, CINDY L. (1989)**Professor
B.A., Susquehanna University; M.A., Duke University; Ph.D., Rice University

Foreign Languages and Literatures

- CIAVARELLI, MARIA ELISA (1973)**.....Associate Professor
B.A., M.A., Ph.D., University of Pennsylvania
- KAPLIS-HOHWALD, LAURIE A. (1994)**.....Associate Professor
B.A., Queens College; M.A., Ph.D., University of Pennsylvania
- MADERO, ROBERTO R. (2001)**Assistant Professor
Licence d'histoire, Paris VII; M.A., Ph.D., Princeton University
- MARTINEZ-YANES, FRANCISCO (1966)**Professor
M.A., University of Rome, Italy; Diplôme, Alliance Française, Paris, France; Ph.D., University of Pennsylvania
- ROBB, ANTHONY J. (2001)**Assistant Professor
B.A., Glassboro State College; M.A., Villanova University; Ph.D., Temple University
- SMITH, EDWARD C. (1992)**Associate Professor
B.A., Rutgers University; M.Phil., Ph.D., New York University
- SPENCER, SONIA B. (1990)**.....Assistant Professor
B.A., Hunter College; M.A., Pennsylvania State University; Ph.D., Duke University

Geography and Anthropology

- BEHM, EDWARD (1971)**.....Assistant Professor
B.A., M.A., Bowling Green State University

- HASSE, JOHN E. (2001)**Assistant Professor
B.A., Rowan University; M.S., Ph.D., Rutgers University
- KASSERMAN, DAVID (1973)**.....Associate Professor
B.A., Indiana University; M.A., Ph.D., University of Pennsylvania
- LEMAIRE, DENYSE (1998)**.....Associate Professor
M.A., Ph.D., Université Libre de Bruxelles
- MARKOWITZ, DIANE (1993)**.....Associate Professor
B.A., Tufts University; D.M.D., Tufts University School of Dental Medicine; Ph.D., University of Pennsylvania.
- ROSADO, MARIA (1993)**.....Associate Professor
B.A., M.A., Ph.D., Rutgers University
- SCOTT, RICHARD (1972)**Professor
B.A., University of Cincinnati; M.A., Ph.D., Syracuse University
- STANSFIELD JR., CHARLES A (1966)**Professor
B.S., West Chester University; M.S., Pennsylvania State University; Ph.D., University of Pittsburgh
- ZIMOLZAK, CHESTER (1974)**Associate Professor
B.A., Pennsylvania State University; M.A., University of Wisconsin

Health and Exercise Science

- BIREN, GREGORY BLAKE (2000)**Assistant Professor
B.A., Shippensburg; M.Ed.D., Temple University; Ph.D., Temple University
- BRADLEY, FRED (1969)**.....Assistant Professor
B.A., B.S., M.A., Appalachian State University; D.A., Middle Tennessee State University
- BUHRER, NANCY (1973)**.....Assistant Professor
B.A., College of William and Mary; M.S., University of North Carolina; Ed.D., Temple University
- BURD, JAMES (1969)**.....Associate Professor
B.S., M.Ed., University of Buffalo
- CHALOUPKA, EDWARD (1972)**Professor
B.A., M.S., Queens College; Ph.D., Ohio State University, Post-Bacc. P.T., Hahnemann Medical University
- CONE, STEPHEN L. (1999)**Professor
B.A., Jacksonville University; M.A., Appalachian State University; Ph.D., Texas A & M University
- FOPEANO, RICHARD J (1992)**.....Associate Professor
B.S.Ed., SUNY, College at Cortland; M.A., Ball State University; Ph.D., Temple University
- MANN, DOUGLAS P. (1998)**Assistant Professor
B.A., University of Miami; M.S., Old Dominion University; DPE., Springfield College
- PAGELL, FRANCESCA LOUISE (1998)**.....Assistant Professor
B.A., M.Ed., Ed.D., Temple University
- PINCKNEY, MELVIN (1986)**Instructor/Academic Coordinator
B.A., Glassboro State College; M.S., N.D., A & T State University
- PUTMAN, MARY LEE (1971)**Associate Professor
B.S., SUNY College at Cortland; M.A., University of Maryland; Ph.D., Temple University
- RATTIGAN, PETER J. (2000)**.....Assistant Professor
B.Ed., Avery Hill College; M.A., University of Minnesota; Ph.D., University of Minnesota
- SPENCER, LESLIE S. (1995)**.....Associate Professor
B.B.A., James Madison University; M.S., Springfield College; Ph.D., Temple University

FACULTY

- STERNER, ROBERT LANCE (2001)**Assistant Professor
B.S., East Stroudsburg University; M.S., University of Pittsburg; Ph.D., University of Toledo
- WHEDON, CHUCK (1986)**.....Instructor/Athletic Trainer
B.S., Slippery Rock; M.S., University of Kansas
- WILLIS, SHARI (2003)**Assistant Professor
B.S., Northeast Missouri State; Ph.D., University of Utah

History

- APPLEBAUM, DAVID (1973)**.....Professor
B.A., Brooklyn College; M.A., Ph.D., University of Wisconsin-Madison
- BLAKE, CORINNE L. (1992)**Associate Professor
A.B., U. of Cal-Berkeley; Ph.D., Princeton University
- CARRIGAN, WILLIAM D. (1999)**Assistant Professor
B.A., University of Texas at Austin; M.A., Ph.D., Emory University
- HEINZEN, JAMES W. (2000)**Assistant Professor
B.A., Trinity College; Ph.D., University of Pennsylvania
- KLAPPER, MELISSA R. (2001)**.....Assistant Professor
B.A., Goucher College; Ph.D., Rutgers University
- KRESS, LEE (1973)**Associate Professor
B.A., Johns Hopkins University; M.A., Ph.D., Columbia University
- LINDMAN, JANET M. (1994)**Associate Professor
B.A., St. Olaf College; M.A., Ph.D., University of Minnesota
- MORSCHAUSER, SCOTT (2003)**Assistant Professor
B.A., Gettesburg College; Ph.D., Johns Hopkins University
- WANG, Q. EDWARD (1992)**Professor
B.A., M.A., East China Normal University; Ph.D., Syracuse University
- WILTENBURG, JOY DEBORAH (1991)**.....Associate Professor
B.A., M.A., University of Rochester; Ph.D., University of Virginia

Journalism and Creative Writing

- BLOCK, RONALD (2003)**.....Assistant Professor
B.A., University of Nebraska; M.A., M.S., Syracuse University;
- CHANG, JULIA (1996)**Associate Professor
B.A., Stonehill College; M.S.J., Columbia University; M.A., Temple University
- CUDDY, CLAUDIA (1999)**.....Assistant Professor
B.A., M.A., M.A., Glassboro State College
- HAUSMAN, CARL D. (1997)**.....Professor
B.A., University of State of New York; M.A., Antioch University; Ph.D., Union Institute
- QUIGLEY, KATHRYN SARAH (2002)**Assistant Professor
B.A., Villanova University; M.A., University of Maryland

Law and Justice Studies

- DAVEY, JOSEPH P. (1998)**.....Associate Professor
B.A., Seton Hall University; J.D., St. John's Law School; M.A., New School for Social Research; Ph.D., City University of New York

- DAVIS, DONALD (1969)**.....Assistant Professor
B.S., Allen University; M.Ed., Temple University; Ed.D., Rutgers University
- DOUGLAS, HERBERT (1980)**.....Professor
B.S., Duquesne; M.S., Glassboro State College; Ph.D., University of Toledo
- FOGLIA, WANDA D. (1994)**.....Professor
B.A., Rutgers University; J.D., Ph.D., University of Pennsylvania
- JIAO, ALLAN (1995)**.....Professor
B.A., Changsha Railway Institute; M.A., Lewis and Clark College; Ph.D., Rutgers University
- LINE, CYNTHIA L. (1999)**.....Assistant Professor
B.A., M.A., Ohio University; Ph.D., The Ohio State University
- VIGORITA, MICHAEL S. (1998)**.....Associate Professor
B.S., M.A., Ph.D., Rutgers University
- WEISS, MICHAEL S. (2001)**.....Assistant Professor
BA, Brooklyn College, J.D., Brooklyn Law School, Ph.D. (2002) State University of New York, Albany
- YELDELL, STANLEY (1974)**.....Assistant Professor
B.A., Bowie State University; J.D., Howard University School of Law

Management and Management Information Systems

- BANUTU-GOMEZ, MICHAEL B. (2000)**.....Assistant Professor
B.A., Eastern Connecticut State University; M.S.W., Boston University; Ph.D., Case Western Reserve University
- BYRD, KIMBLE (1984)**.....Professor
A.B., Villanova Univ.; J.D., University of Pennsylvania
- DAVIS, DANIEL (1983)**.....Assistant Professor
B.S., Glassboro State College; M.B.A., Drexel University
- EZE, EZEGOZIE (1999)**.....Assistant Professor
B.S., Rowan University; M.B.A., Indiana University of Pennsylvania; Ph.D., Walden University
- FLEMING, ROBERT S. (1989)**.....Professor
B.S., Philadelphia College of Textiles & Science; M.B.A., Temple University; M.S., Temple University; M.A.R., Eastern Baptist Theological Seminary; Ed.D., Temple University; M.G.A., University of Pennsylvania; M.S., Temple University; CEBS; SPHR; CDP; CNE; ECNE; MCNE
- HAMILTON, DIANE (1983)**.....Professor
B.S., Glassboro State College; M.B.A., Drexel University; Ph.D., Temple University
- LEE, JOOH (1988)**.....Professor
B.B.A., Kook-Min University; M.S., Colorado State University; Ph.D., University of Mississippi
- MCFARLAND, DANIEL J. (2002)**.....Associate Professor
B.S., M.B.A., Ph.D., Drexel University
- MIRCHANDANI, DILIP (1994)**.....Professor
B.S., M.B.A., University of Bombay, India; Ph.D., Temple University
- PERELES, KATHLEEN LYNN HA (2000)**.....Assistant Professor
B.S., Bonaventure University; M.B.A., Widener University; Ph.D., Temple University
- ROSS, LINDA (1974)**.....Professor
B.A., Lycoming College; M.A., University of Toledo; Ph.D., Wayne State University
- RUDIN, JOEL P. (1999)**.....Associate Professor
B.A.Sc., University of Toronto; M.S., Ph.D., Cornell University

- SCHOEN, EDWARD J. (1999)**.....**Dean/Professor**
B.S., LaSalle University; J.D., Georgetown University
- WEAVER, KENNETH M. (2002)****Professor**
B.S., Ph.D., Louisiana State University
- ZHU, FAYE X. (2000)****Associate Professor**
B.S., Shanghai Institute & Mechanical Engineering; M.B.A., Ashland University; D.B.A., Cleveland State University

Marketing

- GUNER, BERRIN D. (1997)**.....**Associate Professor**
B.A., Marmara University; M.B.A., St. Joseph's University; Ph.D., Drexel University
- HABTE-GIORGIS, BERHE (1988)****Associate Professor**
B.B.A., Haile Selassie University; M.S., Loyola University; D.B.A., Louisiana Tech University
- LEWIS, PHILLIP A. (1993)****Assistant Professor**
B.A., M.B.A., Wright State University; M.A., Ph.D., The Ohio State University
- LUCIUS, HAROLD (1986)****Professor**
B.A., M.B.A., Inter-American University; Ph.D., University of Washington
- PARKER, RICHARD (1990)**.....**Professor**
B.A., Queens College; M.B.A., Rutgers; Ph.D., City University of New York
- PONTES, MANUEL (2000)****Associate Professor**
B.Sc., University of Bombay; M.Sc., Indian Institute of Technology; Ph.D., University of California; Ph.D., University of Florida

Mathematics

- ABAY, ABERA (1993)**.....**Associate Professor**
B.Sc., M.Sc., Addis Ababa University, Ethiopia; Ph.D., Temple University
- CALDWELL, JANET (1983)**.....**Professor**
B.A., Rice University; M.A., University of Pennsylvania; Ph.D., University of Pennsylvania
- CZOCHOR, RONALD (1983)**.....**Professor**
B.S., Union College; M. of B.M.A.; Ph.D., North Carolina State University
- HASSEN, ABDULKADIR (1996)****Associate Professor**
B.Sc., M. Sc., Addis Ababa University, Ethiopia; Ph.D., Temple University
- HERMAN, MARLENA (2002)****Assistant Professor**
B.S., Indiana University of Pennsylvania; M.Ed., Pennsylvania State University; Ph.D. Ohio State University
- HEINZ, KAREN RUTH (2003)****Assistant Professor**
B.S., Penn State; M.A., Ohio State; Ph.D., Penn State
- HOWE, LARRY (1970)****Assistant Professor**
B.A., University of Delaware
- ILICASU, FATMA OLCAY (2001)**.....**Assistant Professor**
B.S., Middle East Technical University; M.S., University of Wisconsin-Milwaukee; Ph.D., University of Wisconsin -Milwaukee
- ITZKOWITZ, GARY (1972)****Professor**
B.S., City College of New York; M.A., Ph.D., University of California.
- LACKE, CHRISTOPHER J. (1998)****Assistant Professor**

B.A., Bowdoin; M.S., University of Southern Maine and North Carolina State University; Ph.D., North Carolina State University

- LAUMAKIS, PAUL J. (1998)**.....Associate Professor
B.S., Drexel University; M.A., Villanova University; Ph.D., Lehigh University
- LI, MING-SUN (1997)**Associate Professor
M.A., Ph.D., University of California at Santa Barbara
- MILOU, ERIC (1997)**.....Associate Professor
B.A., Franklin & Marshall College; M.A., West Chester University; Ed.D., Temple University
- NGUYEN, HIEU DUC (1996)**.....Associate Professor
B of Math, University of Minneapolis; Ph.D., University of California at Berkeley
- OSLER, THOMAS (1972)**.....Professor
B.S., Drexel University; M.S., Ph.D., New York University
- SCHIFFMAN, JAY L. (1993)**Instructor
B.A., M.A., St. John's University
- SIMONS, CHRISTOPHER SMYTH (2000)**Assistant Professor
B.Sc., McGill University; M.A., Ph.D., Princeton University
- WEINSTOCK, EVELYN (1987)**.....Assistant Professor
B.S., M.S., University of Delaware; Ph.D., Drexel University
- WHITTINGHILL, DEXTER C. (1996)**Associate Professor
B.A., Middlebury College; M.S., University of Wisconsin-Milwaukee; M.S., Ph.D., Purdue University
- WRIGHT, MARCUS (1986)**Assistant Professor
A.B., Harvard University; M.S., Ph.D., Stanford University
- ZENG, XIAOMING (1985)**Professor
B.M., Northeast Ind. College (China); M.M., Academy of Science (China); Doctor of Science, Washington University

Music

- APPLEBY-WINEBERG, BRYAN K (2001)**.....Assistant Professor
B.M., Oberlin College; M.M., Cleveland Institute; D.M.A., Rutgers University
- DIBLASIO, DENIS (1994)**Associate Professor
B.A., Glassboro State College; M.M., University of Miami
- GEPHARDT, DONALD L. (1990)**Dean/Professor
B.M.E., Drake University; B.S., M.S., The Juilliard School; Ed.D., Washington University
- GRANITE, BONITA (1972)**.....Associate Professor
B.M.E., M.M.E., Indiana University
- GREENSPAN, BERTRAM (1961)**Professor
B.M., American Conservatory of Music; M.M., D.M., Indiana University
- KUHLMAN, KRISTYN L. (2001)**.....Assistant Professor
B.S., Messiah College; M.M., Kent State University; Ph.D., University of North Carolina at Greensboro
- LEVINOWITZ, LILI (1989)**Professor
B.M., Westminster Choir College; M.M., Ph.D., Temple University
- MAPP, DOUGLAS (2001)**.....Assistant Professor
B.M. Philadelphia College of the Performing Arts; M.M., Temple University
- MAYES, JOSEPH (1993)**Associate Professor
B.A., Edison College; M.M., Shenendoah University

FACULTY

- OLIVER, HAROLD (1979)**.....Professor
B.M., Peabody Conservatory; M.M., Yale Univ.; Ph.D., Princeton University
- PASTIN, JOHN R. (1998)**.....Associate Professor
B.S., University of the State of New York; M.M., Northwestern University
- PLANT, LOURIN (1993)**.....Assistant Professor
B.M.E., Wittenberg University; M.M., D.M.A., College Conservatory of Music, University of Cincinnati
- RAWLINS, ROBERT (1997)**.....Associate Professor
B.A., Glassboro State College; M.A., California State University; M.A., Rowan University; M.A., Ph.D., Rutgers University
- SCARPA, SAL (1994)**.....Assistant Professor
B.A., Glassboro State College; M.M., Eastman School of Music
- STEWART, LARRY (1973)**.....Professor
B.S., Ball State University; M.M., Northwestern University; D.M.A., Univ. of Michigan
- STIEBER, MARIAN (1998)**.....Associate Professor
B.M., M.M., Temple University
- TOMASONE, ADELINE (1983)**.....Assistant Professor
B.M., Curtis Institute of Music; M.A., Rutgers University; M.M., Rowan University
- WADE, THOMAS (1976)**.....Assistant Professor
B.M., Oberlin College; M.M., University of Connecticut
- WITTEN, DEAN (1979)**.....Professor
B.M., Eastman School of Music; M.A., Trinity University
- ZUPONCIC, VEDA (1971)**.....Professor
B.M., M.M., Indiana University

Philosophy and Religion

- ASHTON, DIANNE (1989)**.....Professor
B.A., Adelphi University; M.A., Temple University; Ph.D., Temple University
- CLOWNEY, DAVID (1988)**.....Associate Professor
B.A., Calvin College; M.A., Wayne State University; M.Div., Westminster Theological Seminary; Ph.D., Temple University
- MILLER, ELLEN M. (2003)**.....Assistant Professor
B.A., Rutgers University, M.S. York University, Ph.D. York University
- WANG, YOURU (2000)**.....Assistant Professor
B.A., Fudan University, China; Ph.D., Temple University
- WITONSKY, ABRAHAM (1995)**.....Instructor
B.A., University of Pennsylvania; M.A., Temple University; Ph.D., Temple University

Physics & Astronomy

- FARNELLI, DONALD (1964)**.....Associate Professor
B.S., Glassboro State College; M.Ed., Temple University; Ph.D., Union Graduate School
- FLORES, EDUARDO (1988)**.....Associate Professor
B.S., New York Polytechnic; M.S., Ph.D., University of Michigan
- GUERRA, ERICK J. (1998)**.....Associate Professor
B.S., University of California, Berkeley; M.A., Ph.D., Princeton University
- HETTINGER, JEFFREY D. (1995)**.....Professor
B.A., Mansfield University; M.A., Ph.D., Boston University

- KLASSEN, DAVID R. (1998)**Associate Professor
B.S., University of Minnesota; Ph.D., University of Wyoming
- KNOESEL, ERNEST (2001)**Assistant Professor
B.S., Technical University; Ph.D., Free University, Berlin
- LIM, MICHAEL JAY YOUNG (2003)**Assistant Professor
A.B., Harvard College; Ph.D., University of Michigan
- LING, HONG (1992)**Professor
B.S., Jiaxin Teacher's College; M.S., Xian Institute of Optics and Fine Mechanics; Ph.D., Drexel University
- LOFLAND, SAMUEL E. (1998)**Associate Professor
B.S., M.S., Ph.D., University of Maryland
- MAGEE-SAUER, KAREN P. (1989)**Professor
B.S., University of Virginia; M.S., Ph.D., University of Wisconsin-Madison

Political Science

- BUTLER, R. LAWRENCE (2001)**Assistant Professor
B.A., Washington and Lee University; M.A., George Mason University; M.A. George Washington University; Ph. D., Princeton University
- CASWELL, BRUCE E. (1989)**Associate Professor
B.A., University of Chicago; M.C.P., University of Pennsylvania; Ph.D., Rutgers University
- RASHIDUZZAMAN, MOHAMMAD (1973)**Associate Professor
B.A., M.A., Dacca University, India; Ph.D., Durham University, England.
- WEATHERFORD, BERNADYNE (1987)**Associate Professor
B.A., M.A., Texas Tech University; Ph.D., University of New Mexico

Psychology

- BLANDING, ZENOLA BENJAMIN (1992)**Associate Professor
B.S., South Carolina State College; M.A., Rider College; M.M.A.S., United States Army Command and General Staff College; Psy.D., Florida Institute of Technology
- BROWN, VIRGINIA (1981)**Professor
B.A., M.A., Ph.D., University of Delaware
- CAHILL, JANET (1979)**Professor
B.S., State University of New York at Oneonta; Ph.D., Temple University
- CHAPPELL, MARK S. (1998)**Assistant Professor
B.A., Cheyney University of PA; Ph.D., Temple University
- DAVIS-LAMASTRO, VALERIE (1989)**Assistant Professor
B.S., Douglass College, Rutgers University; M.S., Villanova University; Ph.D., University of Delaware
- DIHOFF, ROBERTA (1987)**Associate Professor
B.A., Rutgers University; M.S., University of Wisconsin at Madison; Ph.D., University of Wisconsin at Madison
- GAER, ELEANOR (1972)**Associate Professor
B.S., University of Wisconsin at Milwaukee; M.S., University of Wisconsin at Madison; Ph.D., University of Illinois; J.D., Rutgers-Camden
- GRECO, MONICA A. (1990)**Associate Professor
B.S., Albright College; M.A., Temple University; Ph.D., Temple University

FACULTY

- HARPER, JAY A. (1999)****Dean/Professor**
B.S., City College, City University of New York; Ph.D., State University of New York at Stony Brook
- HAUGH, JIM (2001)****Assistant Professor**
B.A., Baldwin-Wallace College; M.S., Saint Louis University; Ph.D., Saint Louis University
- HOUGH, GERALD (2003)****Assistant Professor**
B.S., Purdue University; M.S., Ph.D., The Ohio State University
- JEFFREY, LINDA (1973)****Professor**
B.A., University of Nebraska; M.A., Teacher's College Columbia University; M.A., University of Chicago; Ph.D., Rutgers University
- KERWIN, MARY LOUISE E. (1996)****Associate Professor**
B.A., M.A., Ph.D., University of Notre Dame
- OKORODUDU, CORANN (1968)**.....**Professor**
B.A., Cuttington College, Liberia; M.Ed., Ed.D., Harvard University
- PEREZ-RIVERA, KATHERINE (2001)****Assistant Professor**
B.A., Florida International University; M.A., University of Alabama; Ph.D., University of Alabama
- STOECKIG, KEIKO (1988)****Assistant Professor**
B.A., Bemidji State University; Ph.D., Dartmouth College
- STRAUSS, LOIS (1973)**.....**Associate Professor**
B.S., Ed., M.Ed., Ed.D., Temple University
- WILLIAMS, LEONARD J. (1990)****Associate Professor**
B.A., University of Delaware; M.A., McMaster University, Hamilton, Ont.; Ph.D., University of South Carolina
- YURAK, TRICIA J. (1998)****Assistant Professor**
B.S., Northern Kentucky University; M.S., Ohio University; Ph.D., Ohio University

Public Relations/Advertising

- BAGIN, DONALD (1966)**.....**Professor**
B.A., M.A., Villanova University; Ed.D., Temple University
- BASSO, JOSEPH (2003)****Assistant Professor**
B.A., M.A., Glassboro State College; Ph.D., Texas A & M University
- FITZGERALD, SUZANNE D. (1994)****Associate Professor**
B.A., Eastern College of Pennsylvania; M.S., Drexel University; Ph.D., Temple University; APR
- FULGINITI, ANTHONY (1976)****Professor**
B.A., Laurel Hill College; M.A., Villanova University; M.A., Glassboro State College; APR Fellow PRSA
- LITWIN, LARRY (2000)****Assistant Professor**
B.A., Parsons College; M.A., Glassboro State College
- VOGEL, HAL (1984)**.....**Assistant Professor**
B.A., Temple University; M.A., William Paterson College; Ph.D., Antioch University; APR
- VOLPE, CHARLES (2000)****Instructor**
B.A., Brooklyn College; M.A., Rowan University

Radio/Television/Film

- BIERMAN, JOSEPH (1988)**.....**Assistant Professor**
B.A., Rowan University; M.F.A., New York University; Ph.D., Regent University
- BIESEN, SHERI CHINEN (2001)****Assistant Professor**
B.A., M.A., University of Southern California; Ph.D., The University of Texas

- BRAND, KEITH M. (2002)**.....Assistant Professor
B.F.A., West Virginia University; M.Ed., Temple University
- DONOVAN, MIKE (1972)**Professor
B.A., Jersey City State College; M.A., New York University
- ECKHARDT, EDGAR C. (1979)**Associate Professor
B.A., Colgate University, M.A., Case Western Reserve University
- GRUPENHOFF, RICHARD (1981)**Professor
B.A., Xavier University; M.A., Purdue University; Ph.D., Ohio State University
- KALETA, KENNETH (1989)**.....Professor
B.A., M.A., Villanova University; Ph.D., New York University
- LANCIONI, JUDITH (1993)**Associate Professor
B.A., College of New Rochelle; M.A., Ohio University; Ph.D., Temple University

Reading

- DIOBILDA, NICHOLAS (1972)**.....Professor
B.S., West Chester University; M.Ed., Univ. of Delaware; Ph.D., Ohio State University
- FOSTER, BRUCE (1970)**Professor
B.A., Trenton State College; M.S.Ed., Bucknell Univ.; Ed.D., Florida State University
- GANSKE, KATHY A. (1997)**Associate Professor
B.A., University of Iowa; M.Ed., Ph.D., University of Virginia
- HASIT, CINDI (1992)**Associate Professor
B.A., M.S., Ph.D., University of Pennsylvania
- LEFTWICH, STACEY E. (1999)**Assistant Professor
B.A., Glassboro State College.; M.Ed., Temple University; Ph.D., State University of New York, Albany
- MADDEN, MARJORIE (2003)**.....Assistant Professor
B.A., College of William and Mary; M.A., Glassboro State College; Ph.D., University of Pennsylvania
- MARKER, ELAINE S. (2002)**.....Assistant Professor
B.S., Chestnut Hill College; M.Ed., Ed.D., Widener University

Secondary Education/Foundations of Education

- BENEVENTO, JACQUELINE D. (1993)**.....Assistant Professor
B.A., Montclair State; M.A., Middlebury College; Ed.D., Temple University
- CINAGLIA, MARIANNE B. (1994)**.....Assistant Professor
B.S., Drexel University; M.A., Ph.D., University of Delaware
- DAVIS, MATTHEW D. (2000)**Assistant Professor
B.L.S., St. Edwards University; M.Ed., Ph.D., University of Texas at Austin
- GALLAGHER, JOHN V. (1975)**Associate Professor
B.S., New York University; M.S., State University of New York-Oswego; Ph.D., The Ohio State University
- GALLIA, THOMAS (1970)**Professor
B.A., M.A., M.A., Glassboro State College; Ed.D., Rutgers University
- GILES-GEE, HELEN (2001)**.....Professor
B.A., M.S., Ph.D., University of Pennsylvania; M.S., Rutgers University
- HOLDER, KIT KIM (1993)**.....Assistant Professor
B.A., Hampshire College; M.S., Bank Street College; Ed.D., University of Massachusetts

FACULTY

- JORGENSEN, DONNA W. (2000)**.....Assistant Professor
B.S., West Chester University; M.A. Villanova University; Ed.D., Widener University
- LEVY, LYNNE (1973)**.....Associate Professor
B.S., Mansfield State College; M.S., Drexel University; Ed.D., Rutgers University
- MARTIN, MARILYN J. (1995)**.....Associate Professor
B.A., M.L.S., University of Washington; M.A., University of Arkansas, Little Rock; Ph.D., Texas Woman's University
- MEYERS, MARK (1996)**.....Associate Professor
B.A., M.Ed., Ph.D., University of Florida
- ORLANDO, FRANK J. (1972)**.....Associate Professor
B.S., M.S., SUNY-Buffalo; Ed.D., West Virginia University
- PERRY, JILL ANN (2001)**.....Assistant Professor
B.S., M.Ed., University of Florida; Ph.D., University of Central Florida
- PHILLIPS, ANNE E. (2001)**.....Assistant Professor
B.A., M.A. Antioch College; Ph.D., University of Pennsylvania
- PIZZILLO, JOSEPH (1971)**.....Professor
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
- SHONTZ, MARILYN L. (1999)**.....Associate Professor
A.B., Heidelberg College (Ohio); M.S. in L.S., Case Western Reserve University; Ph.D., Florida State University
- SPENCER, JOHN (2003)**.....Assistant Professor
B.A., Brown University; Ph.D., New York University
- TENER, MORTON (1968)**.....Professor
B.S., Rider College; M.S., University of Pennsylvania; M.S., Ed.D., Temple University
- 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
B.A., M.A., University of Missouri; Ph.D., University of Minnesota
- 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

- ZAKE, IEVA (2004)**.....Assistant Professor
B.A., University of Latvia; M.A., Ohio State University; Ph.D. University of Massachusetts
- 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

Special Education Services/Instruction

- BIANCO, SHARON DAVIS (1976)**Professor
B.A., Trenton State College; M.Ed., University of Delaware; Ed.D., Temple University
- CAMMAROTA, MARIE (1988)**Assistant Professor
B.A., M.A., Glassboro State College; Ed.D., Nova Southeastern University
- CRITES, STEVEN A. (2001)**Assistant Professor
B.A., Manchester College; M.Ed., University of New Orleans; Ph.D., Auburn University
- FITCH, J. PAUL, JR. (2003)**.....Assistant Professor
B.A., Rutgers College; Ed.M., Rutgers Graduate School of Education; Ed.D., Rutgers Graduate School of Education
- HAMLET, CAROLYNN (1984)**Assistant Professor
B.S., University of Tennessee; M.Ed., Memphis State University; Ph.D., Temple University
- HATHAWAY, DONNA (1977)**.....Professor
B.A., M.A., Glassboro State College; Ed.D., Lehigh University
- IHUNNAH, ANTHONY (1984)**.....Assistant Professor
B.A., M.A., Marshall University; Ed.D., Virginia Polytechnic Institute and State
- KLANDERMAN, JOHN (1986)**Associate Professor
B.A., Calvin College; M.A., Ph.D., Michigan State University
- KUDER, JAY (1984)**Professor
B.A. Trinity College; M.Ed., Temple University; Ed.D., Boston University
- MCHENRY, SANDRA L. (1993)**.....Associate Professor
R.N., Helene Fuld School of Nursing; B.A., Rowan College of NJ; M.S., University of Delaware; D.N.Sc., Widener University
- OGNIBENE, GERALD (1972)**Professor
B.A., Niagara University; M.S., Canisius College; Ph.D., Ohio State University
- RIOS, HECTOR M. (1994)**Associate Professor
B.A., University of Puerto Rico; M.S., State University of New York; Ph.D., Temple University
- ROSENBERG, JEROME J. (1973)**.....Associate Professor
B.A., Oswego State Teachers College; M.A., Columbia University; Ed.D., Temple University; Ph.D., Heed University, West
- SHUFF, MARGARET (1995)**Assistant Professor
B.A., M.A., Glassboro State College; Ph.D., University of Delaware

FACULTY

- URBAN, STANLEY (1972)**.....**Professor**
B.S., Bridgewater State College; M.A., Western Michigan University; Ph.D., Michigan State University
- WILLIAMS, BARBARA BOLE (2001)**.....**Assistant Professor**
B.A., Muskingum College; M.A., M.A., Glassboro State College; Ph.D., Temple University
- XIN, JOY F. (1994)**.....**Associate Professor**
B.A., Tsitsihar Teachers College, China; M.Ed., Ed.D., Peabody College of Vanderbilt University

Theatre and Dance

- FUSCO, THOMAS A. (1999)**.....**Assistant Professor**
B.A., University of Massachusetts; M.F.A., Boston University
- GRANETO, PHILLIP (1970)**.....**Associate Professor**
A.B., Catholic University; M.F.A., Carnegie-Mellon University
- HEALY, BARTHOLOMEW (1985)**.....**Associate Professor**
A.B., College of the Holy Cross; M.F.A., New York University
- HOSTETTER, ELISABETH (2000)**.....**Assistant Professor**
B.F.A., Virginia Commonwealth University; M.A., University of Texas; Ph.D., University of Missouri
- ROBINETTE, JOSEPH (1981)**.....**Professor**
B.A., Carson-Newman College; M.A., Ph.D., Southern Illinois University
- STEWART, MELANIE (1981)**.....**Professor**
B.A., Webster College; M.F.A., Temple University
- TURNER, PAULE LAWRENCE (2000)**.....**Assistant Professor**
B.A., Virginia Commonwealth University; M.F.A., Temple University

ORGANIZATION OF THE UNIVERSITY

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ORGANIZATION OF THE UNIVERSITY

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Edward Schoen	.Dean, College of Business
Carol Sharp	.Dean, College of Education
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Tina Pinocci	.Assistant Vice President for Student Life
Marvin G. Sills	.Assistant Vice President for Admissions

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
- 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, Admissions
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
- 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 for
Student Development, Student Affairs
B.A., South Carolina State University; M.A., Rider University; Psy.D., Florida Institute of Technology
- 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
B.A., Eastern Kentucky University
- BRELSFORD, GEORGE** (1987)Associate Vice President/Dean of Students,
Student Affairs
B.S., Davis & Elkins College; M.Ed., Pennsylvania State University

ADMINISTRATIVE AND PROFESSIONAL STAFF

- 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.A., Trenton State College
- CARBONARO-DAVEY, MARGUERITE** (1977).....Managing Administrative Assistant,
Administration and Finance
- CARDONA, JOSE'** (1995).....Director, University Relations
B.A., M.A., Rowan University
- CARVER, ADRIAN B.** (2003)Assistant Director, University Relations
B.A., University of Georgia
- CHIN, STEVEN H.** (1997)Associate Dean, College of Engineering
B.S., Rutgers University; M.S., The John Hopkins University; Ph.D., Rutgers 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
- CIOCCO, MIKE** (2003).....Computer Resource Specialist, Instructional Technology
B.S., M.S., Rowan University
- CLARK, CAROL** (1977).....Head of Cataloging, Library
A.B., Regis College; M.S.L.S., Syracuse University; Ed.M., University of Lowell
- CLARKE, III, WILLIAM** (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).....Audio Visual Specialist, Instructional Technology
- COZZONE, STEPHANIE** (2001)Recruitment and Staffing Coordinator, Human Resources
B.S., Rowan University
- CRUZ-SOTO, THOMAS** (2000).....Counselor, Camden Campus CHAMP
B.A., Muhlenberg College
- CUCINOTTA, MARTY** (1987).....Administrative Assistant, Provost's Office
- CURTIS, JULIE** (2003)Program Assistant, Human Resources
B.A., Rowan University
- DAMMINGER, JOANNE** (1997).....Assistant Director, Career and Academic Planning Center
B.A., M.A., Rowan University
- D'AUGUSTINE, ROBERT** (2000)Executive Director, Budget and Planning
B.A., M.A., University of Pennsylvania; M.B.A., Rutgers University; J.D., Rutgers School of Law; N.J. Bar 1997

- 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)
- DEPUE, DAVID** (2002).....Teacher, ESL, Camden Campus
B.A., M.A., Ph.D., University of Pennsylvania
- 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
- DORRIS, MIKE** (2003).....Computer Resource Specialist, Instructional Technology
B.S., Rowan University
- 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).....Associate Provost for Academic Affairs, Provost's Office
B.S., Hampton Institute; M.A., Ohio State University; Ed.D., Temple University
- FARISH, DONALD J.** (1998)President
B.Sc., University of British Columbia; M.S., North Carolina State University; Ph.D., Harvard University; J.D., University of Missouri
- FINAN, JOHN L.** (2001).....Vice President for Administration and Finance
B.S., University of Connecticut; M.B.A., Michigan State University; Advanced Management, Columbia University & Harvard University
- FINN, MARIE** (1990).....Nurse, Student Health Center
R.N., A.D., Gloucester County College; B.S., Temple University
- 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).....Assistant Director, Financial Aid
B.A., Rutgers University
- FITZGERALD, ROBERTA** (1976)Program Specialist, EOF/MAP
B.A., Bloomfield College; M.A., Glassboro State College (Rowan)
- FLAMMA, PATRICIA** (1992).....Nurse, Student Health Center

ADMINISTRATIVE AND PROFESSIONAL STAFF

- R.N., A.D., Gloucester County College; B.S., Temple 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
- FRESHCOLN, 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, CHAMP, Camden Campus
B.S., William Patterson University
- GALLIA, THOMASJ.** (1970)Executive Assistant to the President/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
- 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
- GILES-GEE, HELEN** (2001)Provost
B.A., M.S., University of Pennsylvania; M.S., Rutgers University; Ph.D., University of Pennsylvania
- 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** (1987)Administrative Assistant, Provost's Office
- GOVER, KATHRYN** (1999)Director, Human Resources
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
- 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, ALISA** (1998)Assistant Director, Admissions
B.A., Glassboro State College; M.A., Rowan University
- HOGAN, FRANK** (1991)General Manager, WGLS, College of Communication
A.A.S., Cleveland Institute; Certified Professional Broadcast Engineer, S.B.E.
- HOLLOWAY, KATHY** (1987)Executive Assistant, Administration and Finance
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
- JENNINGS, ANTOINETTE** (1981)Assistant Director/Counselor, Camden Campus EOF
B.S., Penn State University; M.A., University of Pittsburgh
- KAMMER, CYNTHIA** (1984)Assistant Director, Counseling and Psychological Services Center
B.A., M.A., Glassboro State College (Rowan)
- KAPUS, CURT** (2000)Art Director, Advancement 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, PAGE** (2003)Counselor, Camden Campus CHAMP
B.A., Rutgers University
- KLEIN, BRUCE** (1992)Director, Network and System Services
B.S., Glassboro State College (Rowan)
- KLOSKEY, THOMAS** (1977)Coordinator, College of Communication
B.A., M.A., Temple University
- KOLTS-LEVIN, WENDY** (1991)Nurse, Student Health Center
B.A., Glassboro State College (Rowan); R.A., A.S.N., Indiana University
- KORDEN, MARY** (1988)Director of Preschool, Camden Campus

ADMINISTRATIVE AND PROFESSIONAL STAFF

- B.A., Glassboro State College (Rowan)*
KOZAK, ANDREW (1988).....Associate Supervisor, Facilities Operations
 Administrative Services and Procurement
B.A., M.A., Glassboro State College (Rowan); C.A.G.S., Temple University; C.P.M., Rutgers University
- KRAMER, BARRY** (1999).....Director, Management Institute
B.A., City College of New York; M.A., University of Missouri
- KUDER, S. JAY** (1984).....Associate Provost for Research/Dean of the Graduate School
B.A., Trinity College; M.Ed., Temple University; Ed.D., Boston University
- KUERZI, KEN** (1994).....Associate Director, Labor Relations
B.S., J.D., Florida State University
- KUHLEN, JOHN** (1987).....Associate Director, Facilities Accounting & Procurement
B.A., M.B.A., Glassboro State College (Rowan)
- LATHROPE, WENDY** (2000).....Assistant Director, Alumni Relations
B.A., Rowan University; M.A., Rowan University
- LAW, FRANCES** (1986).....Managing Administrative Assistant, University Advancement
B.A., Rowan University
- LEWIS, JEANNE** (1988).....Assistant Director, Admissions
B.A., Glassboro State College (Rowan)
- LIPARTITO, ROBERT** (2001).....Music Librarian, Wilson Building Library
B.M., Glassboro State College; M.M., Manhattan School of Music; M.L.S., Queens College (CUNY)
- LISA, ANTHONY** (1978).....Assistant Director, Athletics
B.A., M.S., Glassboro State College (Rowan)
- LISOWSKI, JOSEPH** (1988).....System Administrator, Network and System Services
B.A., Edison College
- LOMBARDO, NATALIE** (2001).....Grants Accountant, Budget
B.S., St. Joseph's University
- LOONEY, FRANCIS** (1981).....Acting Director, Disability Resources
B.A., M.A., Glassboro State College (Rowan)
- LOVEGROVE, JAMES** (1982).....Associate Director, Accounts Payable/Long Range Planning
B.S., Glassboro State College (Rowan)
- LUKASAVAGE, MICHAEL** (1995).....Supervisor, Duplicating Services
- LYNCH, CINDY** (1980).....Assistant Dean, College of Liberal Arts and Sciences
B.A., M.A., Glassboro State College (Rowan)
- 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
- MALONEY, MARCIA** (1976).....Buyer, Purchasing
B.A., Glassboro State College (Rowan)
- 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

B.S., Southern Illinois University; M.A., Rowan University

- MARSHALL, LORI** (1992)Director, Advancement Publications
B.S., Evangel College; M.A., Rowan University
- MARTIN, MARILYN** (1995)Dean, Library Services
B.A., M.L.S., Univ. of Washington; M.A., Univ. of Arkansas; Ph.D., Texas Woman's Univ.
- MATALUCCI, MARK** (1987).....Coordinator of Testing, Academic Success Center
B.A., Glassboro State College (Rowan)
- 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., Itaca College; M.S.Ed., Temple University; CELTA Teaching Certificate, Cambridge University
- McCALL, SALLY** (1977)Director, Budget
B.S., Drexel University
- McCALL, MARIA** (1994)Assistant Director, Budget
B.S., St. Joseph's University
- McCALLA-WRIGGINS, ELIZABETH** (1974).....Director, Career and Academic Planning Center
B.S., M.S., University of Tennessee
- 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
- MECOUCH, JOANN** (1987).....Professional Services Specialist, Accounting Services
- MEREDITH, PHYLLIS** (1987).....Public Services Librarian, Library
B.A., Fayetteville State University; M.L.S., Atlanta University
- MEYERS, 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
- MILLER, DEMOND S.** (1997).....Director, Liberal Arts and Sciences Institute
B.A., Northeast Louisiana University; M.S., Ph.D., Mississippi State University
- MILLER, ALLEN** (1976).....Chief Engineer, WGLS, College of Communication
B.S., M.S., SUNY-Oswego
- MILLER, KEVIN** (2003)Computer Resource Specialist, Instructional Technology
B.S., Rowan University
- MILLS, JOHN T.** (1992).....Coordinator, Multi-cultural Affairs
B.S., M.A., Glassboro State College (Rowan)

ADMINISTRATIVE AND PROFESSIONAL STAFF

- 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 Building Library
B.A., University of Pennsylvania; M.S., Drexel University
- MORROW, EILEEN** (1992).....Director, Rowan University Bookstore
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- MOSSMAN, GAIL** (1984)Managing Administrative Assistant, Student Affairs
- 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
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B.S., East Stroudsburg University; M.A., Shippensburg University
- MURPHY, DANIEL** (1996).....Assistant Director, Advancement Publications
B.A., George Washington University; M.A., Rowan University
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B.S., Rowan University; M.S., University of Maryland
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B.A., M.Ed., Boston College; Ed.D., Widener University
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B.A., Glassboro State College (Rowan)
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B.A., Brown University
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- PINOCCI, TINA** (1992).....Assistant Vice President, Student Life
B.S., M.Ed., Frostburg State College
- POLAK, HELEN E.** (2001).....Staff Psychologist, Counseling and Psychological Services Center
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- PRITCHETT, FRED A.** (1975).....Counselor, Camden Campus CHAMP
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- PUSTIZZI, RICHARD** (1984).....Supervisor of Postal Services, Administration and Finance
- QUIGLEY, PATRICIA** (1999).....Assistant Director, University Relations
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- RAFFA, SAMUEL SR.** (1988).....Assistant Director, Labor Relations
- REEVE, JULIA** (1988).....Managing Administrative Assistant, President's Office
- RIGDON, JOYCE** (1988).....Director, Institutional Research and Planning
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B.A., Bloomfield College; M.A., Seton Hall University
- SCHOEN, EDWARD J.** (1999).....Dean, College of Business
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B.S., King's College; M.S., College of Misericordia
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- SEDLICK, MARK** (1997).....Computer Network Specialist, Network and System Services
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- SHARP, CAROL** (1987).....Dean, College of Education
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- SHIKARZY, SUZANNE** (2000).....Teacher, Camden Campus Preschool
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B.S., Thomas Edison State College
- SHUTE, JENNIFER** (2000).....Teacher, Camden Campus Preschool
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B.A., M.S.W., Rutgers University
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- SMILEY, JANINE** (2000).....Benefits Coordinator, Human Resources
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B.S.T., Spring Garden College
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- WILBUR, CATHERINE** (1987)Associate Director, Human Resources
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- WILLIAMS, RICHARD A.** (1984)EEO/AA Officer, Human Resources
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- WILLIAMS, OLLIEVITA** (1986)Director, EOF/MAP
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- WILSON, BONNIE** (2001)Coordinator, Tutoring Center
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- WILSON, RONNETTE** (1998)TV Production Coordinator, College of Communication
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- 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
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 Psychology
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- ALVINO, ESTHER (1966-1987)**Assistant Professor
 Elementary Education
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- AMBACHER, RICHARD J., JR. (1967-2000)**.....Professor
 Communication Studies
B.A., Glassboro State College; M.F.A., Yale University
- AMME, LINDA (1968-1990)**.....Assistant Professor
 Special Ed. Serv./Instuction
B.A., M.A., Glassboro State College
- ANDERSEN, DONALD (1970-1998)**.....Assistant Professor
 Special Ed. Serv/Instruction
B.A., M.Ed., Rutgers University
- AUGUST, BERNARD B. (1964-1976)**.....Assistant Professor
 Mathematics
B.S., M.A., University of Pennsylvania
- AVRIL, EDWIN (1959-1982)**.....Professor
 Music
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- BARTELT, PEARL W. (1972-1999)**.....Professor
 Sociology and Dean
B.S., M.A., Ph.D., Ohio State University
- BENDER, AARON (1964-1991)**.....Professor
 History
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- BENNETT, RENEE (1963-1983)**Assistant Professor
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- BEVERLY, LEAH (1958-1984)**Professor
 Health and Physical Education
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- BIANCHI, JOHN (1967-1990)**.....Professor
 Education and Coordinator of Research
B.S., Villanova Univ.; M.Ed., Rutgers Univ.; Ed.D., Temple University
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 Biological Sciences
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- BLANKEN, MAURICE (1957-1982)**Associate Professor
 Economics and Political Science
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- BLOUGH, ROBERT (1963-1995)**Professor
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- BOLAY, BRENDA (1968-1997)**Associate Professor
 Health and Exercise Science
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- BORGEN, EVELYN (1965-1991)**Professor
 Elementary/Early Childhood Education
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- BRESLIN, FREDERICK (1960-1991)**Professor
 Psychology
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- BRIGLIA, D. MICHAEL (1956-1988)**Professor
 Health and Physical Education
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- BRINKER, BEULAH (1960-1984)**Assistant Professor
 Elementary Education
B.S., Glassboro State College; M.A., New York University
- BRITTON, PEARL E. (1968-1977)**Professor
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- BROOKS, ELLAIN (1965-1983)**Assistant Professor
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- BROWN, ESTELLE (1962-1992)**Professor
 Reading/Speech Correction
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- BUZASH, GABRIEL (1964-1981)**Professor
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B.S., Slipper Rock State College; M.S., Westminster College; Ed.D. Penn State University
- BYRER, JOSEPH (1968-1995)**Assistant Professor
 Technology
B.S., M.S., Indiana State University
- CARPENTER, HOYLE D. (1957-1976)**Professor
 Music
B.M., Univ. of the Pacific; M.M., Eastman School of Music; Ph.D., Univ. of Chicago

- CELL, HOWARD R. (1967-2000)**Professor
 Philosophy/Religion
B.S., University of Wisconsin; M.A., San Jose University; Ph.D., Temple University
- CHAMBERLAIN, MARK M. (1969-2000)**President Emeritis
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- CIMPRICH, JACK R. (1973-1998)**Associate Professor
 Computer Science
B.A., Boston College; M.S. Eng., University of Pennsylvania
- CLAPP, ROBERT A. (1969-2000)**Assistant Professor
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B.A., Pennsylvania State University; M.A., Syracuse University
- CLAY, KENNETH (1965-1991)**Professor
 Technology/Dean of Academic Administration
B.S., Millersville State College; M.A., Ball State Univ.; Ed.D., Michigan State University
- COHEN, STANLEY (1961-1984)**Professor
 Educational Administration
B.S., Rutgers University; M.Ed., Ed.D., Temple University
- COLLINS, JOHN (1963-1994)**Professor
 Communications
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- COLLINS, JOHN J. (1969-1999)**Professor
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- CONRAD, GEORGE (1958-1979)**Professor
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- CRAVER, RHYS (1963-1994)**Associate Professor
 Chemistry & Physics
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- CREAMER, MARVIN C. (1948-1977)**Professor
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Foundations of Education
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- DINSMORE, LEE (1971-2002)**Professor/Chemistry and Physics
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Geography/Anthropology
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- EMERSON, ROBERT (1966-1992)**Asst Professor/Asst Director
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- ENGBRETSON, HERSCHEL (1969-1988)**Assistant Professor
Communications
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 Library
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 Economics
B.S., Temple University; M.S., University of Pennsylvania
- HUMBERT, JOHN J. (1969-1995)**.....Professor
 Technology
B.S., University of Maryland; M.Ed., Pennsylvania State University; Ed.D. Texas A&M University
- HUSAIN, SYED (1960-1994)**.....Professor
 Biological Sciences
I.Sc., City Science College, Hyderabad; B.Sc., College of Agriculture, Osmania University, Hyderabad, India; M.S., Oklahoma State University; Ph.D., Cornell University
- ILLAS, ARTURO (1967-1987)**Associate Professor
 Foreign Languages and Literatures
B.A., M.S., Indiana State University; B.A., B.S., City College of Santiago; L.L.D., Univ. of Jose Marti
- JAEGER, PETER (1966-1981)**Associate Professor
 Communications
B.A., Mexico City College; M.Ed., University of Houston
- JENSEN, IVAR I. (1959-1981)**Professor
 Foundations of Education
B.Ed., Univ. of Connecticut; M.A., Middlebury College; Ed.D., Columbia University
- JOHNSON, RICHARD J. (1971-2000)**Associate Professor
 Political Science
B.A., M.A., Cert. of Russian Institute; Ph.D., Columbia University
- JOHNSON, THEODORE B. (1990-1999)**Associate Professor
 Educational Leadership
B.S., M.A., Temple University; Ed.D., Rutgers University
- JONES, JOHN (1968-1990)**Assistant Professor
 Foreign Languages and Literatures
B.A., M.A., University of Alabama; Diplome, Institut de Touraine, Tours, France
- KAPEL, DAVID (1988-2002)**Professor
 Secondary Ed/Foundations
B.S., M.Ed., Ed.D., Temple University
- KARDAS, WILLIAM (1968-2000)**.....Head Reference Librarian
B.S., M.L.S., Villanova University
- KELLER, HORACE (1960-1986)**.....Professor
 Psychology
B.S., West Chester University; M.Ed., Ed.D., Temple University
- KELLY, MICHAEL F. (1961-1998)**Professor
 Theatre and Dance
B.A., Elmhurst College; M.A., Ph.D., State University of Iowa
- KENNEDY, KATHLEEN (1964-1998)**.....Assistant Director for Public Services
 Library
B.A., Rutgers University; M.S., Villanova University
- KERSHNER, E. THEODORE (1968-1998)**.....Assistant Professor
 Health and Exercise Science
B.S., Ursinus College, M.Ed., Temple University

- KESSLER, SIDNEY (1958-1991)**Professor
History
B.A., Montclair State College; M.A., Columbia University; M.L.S., Pratt Institute
- KIRNER, CLARA (1971-1994)**Librarian
B.A., Rutgers University; M.A., Drexel University
- KISLAN, RICHARD (1964-1994)**Professor
Speech/Theatre/Dance
B.A., Georgetown University; M.A., Ph.D., New York University
- KOWALSKI, PEARL (1967-1987)**Professor
Health and Physical Education
B.S., East Stroudsburg State College; Ed.D., Temple University
- KUSHNER, WILLIAM (1970-1999)**Professor
Communication Studies
B.A., Montclair State College; M.A., Temple University; Ph.D., Indiana University
- LANGWORTHY, STANTON (1956-1991)**Professor
Secondary Ed/Foundations of Education
B.A., M.Ed., Alfred University of NY; M.S., M.A., Ph.D., University of Wisconsin
- LEE, ELAINE (1967-1994)**Professor
Elementary/Early Childhood Education
B.S., M.A., Trenton State College; Ed.D., Temple University
- LEE, PAUL (1960-1985)**Associate Professor
Math/Computer Science
B.S., National Central University; M.R.E., Biblical Seminary; Ed.D., Columbia University
- LESHAY, STEVEN V. (1978-1999)**Associate Professor
Marketing
B.A., Lenoir Rhyne College; M.A., Glassboro State College; Ph.D., Temple University
- LI GWAN YUEN (1960-1977)**Professor
Psychology
B.A., Ginling College; M.A., Smith College; D.S.S., New School for Social Research
- LIBRO, ANTOINETTE (1968-2002)**Dean/Professor
Communication
B.A., Glassboro State College; Ph.D., New York University
- LINT, JERRY N. (1964-1998)**Assistant Professor
Geography/Anthropology
B.S., Clarion State College; M.Ed., Pennsylvania State University
- LLLOYD, DAVID D. (1959-2000)**Associate Professor
Journalism and Creative Writing
B.A., Montclair State College; M.A., University of Michigan
- LOIGMAN, BARRY M. (1970-1999)**Associate Professor
Psychology
B.A., M.A., Temple University; Ph.D., Rutgers University
- LONGACRE, DAVID (1961-1989)**Education and Assistant Registrar
B.A., Gettysburg College; M.S., University of Pennsylvania
- LYNCH, ROBERT D. (1973-1999)**Professor
Management/MIS
B.S., M.S., Ph.D., Carnegie-Mellon University; SPHR

- MARTIN, DORIS (1976-1987)**Assistant Professor
 Home Economics
B.S., Penn State University; M.S., Cornell University; Ed.D., Temple University
- MASAT, FRANCIS E. (1972-1998)**.....Professor
 Mathematics
B.A., Blackburn College; M.S., Kansas State University; Ph.D., University of Nebraska
- MASSUDA, BARRY (1967-1992)**Assistant Professor
 Foreign Languages and Literatures
B.A., Cairo University; M.A., Seton Hall University
- McCONNELL, HELEN (1965-1995)**Professor
 Home Economics
B.S., State Univ. College, Oneonta, NY; M.A., Columbia Univ.; Ph.D., Michigan State University
- McCORMICK, RALPH (1973-1987)**Assistant Professor
 Business Administration
B.S., University of Detroit; C.P.A.
- McCRANN, VIRGINIA E. (1968-1985)**Assistant Professor
 Home Economics
B.A., M.Ed., Rutgers University
- McKENZIE, JAMES J. (1954-1980)**Professor
 English
B.A., Canisius College; M.A., Ph.D., Harvard University
- McLEAN, DESMOND (1966-2002)**.....Associate Professor
 Art
B.A., Newark State College; M.A., Hunter College
- MERCIER, J. DENIS (1967-2002)**.....Professor
 Communication
B.A., Marian College; M.A., Niagara University; Ph.D., University of Pennsylvania
- METCALF, OWEN (1972-2000)**Associate Professor
 Music
B.M.E., M.M.E., University of Colorado; D.M., Indiana University
- MEYERS, DOROTHY (1967-1985)**.....Assistant Professor/Librarian
B.A., State University of Iowa; M.L.S., Rutgers University
- MICAL, AGNES (1968-1996)**Assistant Professor
 Health & Exercise Science
B.S., M.S., West Chester University
- MICHAELSON, JAMES (1967-1991)**.....Assistant Professor
 Secondary Ed/Ed. Foundations
B.S., M.A., Temple University
- MICKLUS, SAMUEL C. (1968-1991)**Professor
 Technology
B.S., Philadelphia College of Art; M.A., Trenton State College; Ed.D., New York Univ.
- MILLER, CLARENCE (1956-1992)**Professor
 Music
B.M.E., Mount Union College; M.M., Marshal University

- MITCHELL, RICHARD (1964-1991)**Professor
English
B.A., University of the South; M.A., Ph.D., Syracuse University
- MITCHELL, ROBERT D. (1965-1997)**Associate Professor
Mathematics
B.S., M.A., University of Texas
- MONROE, GERALD (1968-1986)**Associate Professor
Art
B.S., M.A., Ed.D., New York University
- MOORE, ELIZABETH (1972-2002)**Professor
Biological Sciences
B.Sc., Rollins College; M.S., Ph.D., Cornell University
- MOORE, OSCAR (1971-2003)**Assistant Professor
Health & Exercise Science
B.S., M.S., Southern Illinois University
- MORFORD, IDA B. (1956-1981)**Professor
Psychology
B.S., Geneseo State College; M.A., Ph.D., Ohio State University
- MORRIS, WILLIAM C. (1968-1999)**Professor
Theatre and Dance
B.A., DePaul University; M.A., Northwestern University; Ph.D., University of Illinois
- MOYER, MEL (1967-2000)**Associate Professor
Psychology
B.A., Glassboro State College; M.Ed., Temple University; Ed.D., Rutgers University
- MUMFORD, DONALD (1961-1985)**Assistant Professor/Research Assistant
B.A., Geneva College; M.A., University of Pittsburgh
- MYKSVOLL, BIRGER (1962-1981)**Professor
Psychology
B.A., Notodden Teachers College, Norway; M.A., Oslo Univ., Norway; Ph.D., University of Maryland
- NEFF, GEORGE (1962-2000)**Professor
Art
B.S., Kutztown University; M.A., Columbia University; Ed.D., Pennsylvania State University
- NICHOLS, ELWOOD (1960-1988)**Associate Professor
Life Sciences
B.S., North Carolina Central University; M.S., City College of New York
- NICHOLS, LOLA (1960-1986)**Assistant Professor
Elementary Education
B.S., Trenton State College; M.A., Columbia University; M.A., Glassboro State College
- NIENSTEDT, CARL W. (1962-1982)**Professor
Special Education
B.A., M.A., Bucknell University; Ph.D., University of Connecticut
- NORTON, DONALD (1961-1983)**Professor
Music
B.S., Western Michigan University; M.A., University of Maryland; Ed.D., Columbia Univ.
- O'DAY, SHIRLEY (1963-1990)**Professor
Health and Physical Education
B.S., University of Delaware; M.Ed., West Chester State College; Ed.D., Temple University

- ONNI, MURIEL (1967-1991)**Professor
 Foreign Languages and Literatures
B.A., Univ. of Toronto; M.A., McGill University; M.A., Ph.D., Rutgers University
- PALLADINO, MARY ANNE (1964-1994)**.....Professor
 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
- PFLEGER, W. CLARKE (1947-1988)**.....Professor
 Music
B.S., State University of New York at Fredonia; M.A., Ed.D., Columbia University
- 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
- PINO, JOSEPH (1966-1988)**Assistant Professor
 Assistant Dean of Academic Advisement
Director, Academic Support Programs B.S., Trenton State College; M.Ed., Penn State University; Ed.D., Temple University
- 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
 Psychology
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
- QUEENEY, KATHRYN (1968-1986)**Associate Professor
 Communications
B.A., Immaculata College; M.A., Villanova University; Ph.D., Ohio University

- REEVES, EDWIN C. (1968-1996)**.....Assistant Professor
Reading
B.A., M.A., Glassboro State College
- REGENSBURG, GEORGE E. (1959-1984)**Professor
Special Education
B.S., Rider College; M.A., Montclair State College; Ed.D., Rutgers University
- REINFELD, GEORGE (1956-2002)**.....Professor
Communication
B.A., M.A., Montclair State College
- RESNIK, BENJAMIN (1965-1991)**.....Assistant Professor
Communications
B.A., M.A., Glassboro State College
- RICHARDSON, HERBERT A. (1966-1998)**Assistant Professor
History
B.M., M.M., Yale University; M.A., Ph.D., University of Pennsylvania.
- RILLING, MARION (1971-2001)**Professor
Graduate School
B.S., Trenton State College; M.S., Ed.D., University of Pennsylvania
- ROCH, JOHN (1959-1984)**.....Professor
English
B.A., University of Massachusetts; M.A., Ph.D., Columbia University
- ROMANIO, STEVEN (1963-1993)**Professor
Music
B.M., M.M., Eastman School of Music
- ROOME, WARREN G. (1958-1975)**Professor
Mathematics
B.S., Mt. Allison University; M.A., Ed.D., Columbia University
- ROWAND, EDITH T. (1966-2000)**.....Assistant Professor
Health and Exercise Science
B.S., The King's College; M.S., West Chester State College
- SAKIEY, ELIZABETH (1974-2000)**Professor
Reading
B.S., Eastern Michigan University; M.Ed., Ed.D., Rutgers University
- SALATI, RUDOLPH (1959-1983)**Assistant Professor/Registrar
B.S., Glassboro State College; M.Ed., Temple University
- SALERNO, ANTHONY (1976-1997)**.....Assistant Professor
Law/Justice
B.A., University of Delaware; M.A., Rutgers University
- SCHREIBER, ELLIOTT (1967-1995)**Associate Professor
Psychology
B.A., Upsala College; M.A., Bradley University; Ed.D., West Virginia University
- SCHWARZ, CHARLES (1967-1999)**Assistant Professor
Mathematics
B.A., St. John's University; M.S., Fordham University; M.S., Adelphi University; Ed.D., Rutgers University
- SERFUSTINI, LEONARD (1971-1986)**.....Professor
Health and Physical Education
B.Ed., M.Ed., University of Buffalo; Ed.D., State University of New York

- SHAW, ALBERT (1955-1989)**.....Professor
 Philosophy/Religion
B.A., Temple University; M.A., New York University
- SHAWVER, MURL C. (1958-1974)**Professor
 Life Sciences
B.S., Central Missouri State College; M.Ed., Univ. of Missouri; Ed.D., Columbia Univ.
- SHRADER, EDITH (1959-1968)**.....Demonstration Teacher
 Early Childhood Education
B.S., M.S., Glassboro State College
- SIMONS, ROBERT (1965-1987)**Assoc. Professor/Exec. Director
 Curriculum Develop. Council
B.S., West Chester State College; M.A., Ohio University
- SIMPSON, EUGENE (1975-2000)**Professor
 Music
B.M., Howard University; B.M., M.M., Yale University; Ed.D., Columbia University
- SIZEMORE, WARNER (1966-1987)**Assistant Professor
 Philosophy/Religion
B.A., East Tennessee State; M.A., Bob Jones University; M.A., Temple University; B.D., Lincoln University Theological Seminary
- SMITH, RICHARD R. (1964-1999)**.....Professor
 Educational Leadership
B.A., M.A., Glassboro State College; Ed.D., Temple University
- SMITH, STEWARD (1968-1983)**Assistant Professor
 Elementary Education
B.A., Rutgers University; M.Ed., Temple University
- SOOY, JOHN M. (1961-1998)**Professor
 Mathematics
B.S., Glassboro State College; M.S., University of Pennsylvania; Ed.D., Temple University
- SPEAR, MIRIAM (1967-1983)**.....Assistant Professor
 Secondary Education
B.A., M.S., Glassboro State College
- STANLEY, DANIEL (1966-1991)**Professor
 Health and Physical Education
B.Ed., Univ. of Buffalo; M.Ed., State Univ. of New York; Ed.D., Temple University
- STERN, SIDNEY (1973-1985)**Assistant Professor
 Elementary/Early Childhood Education
B.A., M.S., University of Pennsylvania
- STEVENS, KATHLEEN (1972-1998)**.....Associate Professor
 Communication
B.A., Georgian Court College; M.A., Glassboro State College (Rowan)
- STONE, DON C. (1968-2000)**.....Associate Professor
 Computer Science
E. Eng. Phys., Cornell University; M.S.E., Ph.D., University of Pennsylvania
- SULLIVAN, JANE E. (1972-1999)**.....Professor
 Reading
B.S., Seton Hall University; M.S., Ed.D., State University of New York, Albany

- TANEY, MARY C. (1967-1991)**.....**Professor**
 History
B.A., College of Saint Teresa; M.A., Ph.D., Catholic University; Litt.D., Universita Cattolica del Sacro Cuore, Milan, Italy
- TANNENBAUM, MARGARET D. (1971-2000)****Professor**
 Secondary Education
B.A., Bryan College; M.Ed., Ed.D., Temple University
- TANNENBAUM, THEODORE (1973-1998)**.....**Professor**
 Sociology
B.A., M.A., Brooklyn College; Ph.D., Purdue University
- TAYLOR, ALBERT (1964-1987)****Professor**
 Foundations of Education
B.S., Trenton State College; M.Ed., Ed.D., Rutgers University
- TAYLOR, ROBERT (1964-1991)**.....**Professor**
 Music
B.S., Julliard; M.A., Ed.D., Teachers College, Columbia University
- THYHSEN, JOHN (1969-2000)****Professor**
 Music
B.M., M.M., Eastman School of Music
- TIMON, WILLIAM (1974-1988)**.....**Professor**
 Mathematics/Computer Science
B.S., Northwestern State University of Louisiana; M.S., Tulane University; Ph.D., Oklahoma State University
- TISHLER, JOSEPH (1964-2000)****Professor**
 Art
Cresson Scholar, Pennsylvania Academy of Fine Arts; B.F.A., M.F.A., University of Pennsylvania; D.A., Carnegie-Mellon University
- TOMEI, MARIO (1964-1995)**.....**Professor**
 Educational Administration
B.A., Montclair State College; M.S., University of Pennsylvania; Ed.D., Temple University
- TRACEY, JAMES H. (1994-2000)****Dean/Professor**
 College of Engineering
B.S.E.E., M.S., Ph.D., Iowa State University
- TRAVIS, DAVID (1962-1991)****Associate Professor**
 Mathematics
B.S., New Mexico State University; M.S., Oklahoma State University; Ed.D., University of Northern Colorado
- TSUJI, THOMAS (1969-1995)****Professor**
 Technology
B.S., M.S., Stoudt State College; Ph.D., Michigan State University
- VERBEKE, MAURICE (1967-1987)****Professor**
 Educational Administration
B.S., M.Ed., Ed.D., Pennsylvania State University
- VIVARELLI, THOMAS (1967-2004)****Assistant Professor**
 Special Education
B.A., Trenton State College; M.A., Glassboro State College

- VIVIAN V. EUGENE (1955-1979)**Professor
 Life Sciences
B.A., Montclair State College; M.A., Columbia University; Ph.D., New York University
- WACKAR, RICHARD (1956-1988)**Professor
 Health and Physical Education
B.S., M.A., Rutgers University
- WARD, HUGH J. (1959-1976)**Associate Professor
 Foundations of Education
B.S., M.A., Glassboro State College
- WARING, JOSEPH C. (1966-1991)**Associate Professor
 Physical Sciences
B.A., State Univ. of New York at Binghamton; M.S., State Univ. of New York at Oneonta; Ph.D., University of South Carolina
- WASSERMAN, BURTON (1960-2003)**Professor
 Art
B.A., Brooklyn College; M.A., Ed.D., Columbia University
- WEAR, BARBARA (1973-1999)**Assistant Professor
 Elementary/Early Childhood Education
B.A., Trenton State College; M.S.W., Rutgers University
- WELSH, CHARLES (1973-1992)**Professor
 Marketing
B.S., Villanova University; M.B.A., Ph.D., University of Pennsylvania
- WHITCRAFT, JOHN (1963-1987)**Professor
 Philosophy/Religion
B.A., Asbury College; M.A., Temple Univ.; B.D., Asbury Seminary; S.T.M., Boston Univ.
- WHITE, EDWARD H., JR. (1973-2000)**Professor
 Educational Leadership
B.A., Keene State College; M.S., Indiana State University; Ph.D., University of Maryland
- WICKS, LAWRENCE (1962-1997)**Associate Professor
 Music
B.M., M.M., Ithaca College
- WILLIAMS, THELMA (1969-1987)**Associate Professor
 Music
B.S., Trenton State College; M.A., New York University
- WINAND, LOIS (1971-1991)**Assistant Professor
 Home Economics
B.S., M.S., Drexel University; Ed.D., Pennsylvania State University
- WOLFE, EDWARD (1959-1994)**Professor
 English
B.A., M.A., Ph.D., University of Pennsylvania
- WOOD, A. TAGE (1968-1987)**Associate Professor
 Speech/Theatre/Dance
B.S., East Stroudsburg State College; M.Ed., University of South Dakota
- WOODS, WELLINGTON (1967-1998)**Associate Professor
 Chemistry and Physics
B.S., Glassboro State College; M.Ed., Rutgers University; Ph.D., Walden University

- WRIGGINS, THOMAS (1967-1992).....Assistant Professor/Director of Support Services**
 Education
B.A., Glassboro State College; M.Ed., Temple University
- YANNELLA, DONALD (1964-1991).....Professor**
 English
B.S., M.A., Ph.D., Fordham University
- YOUNG, FLORA (1968-1995)Professor**
 Sociology
B.A., M.A., Howard University; Ed.D., University of Pennsylvania
- YOUNG, WALTER BYRON (1972-1997)Professor**
 Art
B.A., M.A., Glassboro State College; Ed.D., Pennsylvania State University
- ZAHN, RICHARD (1960-1987)Professor**
 Foundations of Education
B.S., West Chester State College; M.Ed., Ed.D., Temple University
- ZALUSKY, DONALD (1966-1991).....Associate Professor**
 Physical Sciences
B.S., M.A., University of Missouri; Ph.D., University of Delaware
- ZIMMERMAN, DONALD (1961-1992).....Professor**
 Elementary/Early Childhood Education
B.S., M.A., State University of New York, Buffalo; Ed.D., Temple University
- ZINK, THEODORE (1966-1987).....Professor**
 Law/Justice
B.S., M.S., University of Delaware; Ed.D., Temple University

CAMPUS BUILDINGS

Robert D. Bole Hall Administration Building

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, university marketing, institutional research and planning, and public safety.

R. Grace Bagg Alumni Center

Named in honor of a former administrator who served the university for 48 years, the building is located on Whitney Avenue, near Hollybush. The Alumni Center is the headquarters for the Rowan University Alumni Association and the office of corporate and foundation relations.

John H. Bosshart Hall

This building, named after a former state commissioner of education, houses the dean of the College of Liberal Arts & Sciences, the center for addiction studies, African American studies and several grant funded offices. It also contains a large lecture hall, and several classrooms and laboratories.

Loriot D. Bozorth Hall

Named for a former registrar, Bozorth Hall was originally opened in 1954 as the campus elementary school. Renovated in 1985 and refurbished 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.

Edgar F. 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 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.

Otto P. 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.

Carriage House

Built in 1849 to service the Hollybush mansion, this building now houses university publications and the ROTC program.

Education Hall

In February 2004, the university broke ground for a three-story, 135,000-square foot facility to house the College of Education. The facility is expected to open in fall 2005.

Roland A. Esbjornson Hall Health and Physical Education Center

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.

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.

The 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.

J. Leonard Hering Heating Plant

The building is named for the former superintendent of maintenance. It houses the centralized heating equipment.

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

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 Kosygin in 1967. In 2000, a renovation project was begun to restore Hollybush as a museum and meeting center.

Keith and Shirley 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 Campbell's generous gift of an endowment for the Library.

Linden Hall

Formerly a student residence facility, Linden Hall houses the office of human resources, the student health center, the facilities management 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. Offices located there include: the associate provost's office for information resources, instructional technology, network systems, digital printing services, user services, campus help desk and the computer/M.I.S. center. Offices that are not related to information systems include: dance studios, the faculty center for excellence in teaching and learning, government grants and sponsored projects and The Graduate School.

Thomas E. Robinson Hall Classroom Building

Named after Thomas E. Robinson, a former Rowan University president, this is one of the largest classroom buildings on campus. It is home to the College of Education as well as 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: dean of education, education institute, psychology, reading, special education, educational leadership, elementary/early childhood education; secondary education, geography/anthropology, history, mathematics, computer sciences, sociology and political science.

Henry M. 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.

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, academic success center, admissions, counseling, EOF/MAP, registrar, financial aid, revenue and collections, residence life, multicultural/international affairs, 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.

Student Center

The Student Center opened in 1974 and serves as a campus focal point where students, faculty, staff and community members congregate for a wide range of events, services and functions. It houses offices for student organizations and publications as well as several administrative offices, including dining services, Center for Service Learning and Volunteerism, and student offices (Student Government Association, Student Activities Board, and Student Publications Suite). The following facilities are located in the three-level center: the information desk, the I.D. room, the mailroom, an ATM machine, the Rathskeller, the game room, a laundry room, a study lounge, a T.V. lounge, the Eynon Ballroom, meeting and conference rooms and eating areas, including the dining hall, a food court, snack bar, outdoor dining terrace and the Owls Nest Restaurant.

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.

Cleve O. Westby Hall Arts Building

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.

Harold Wilson Music 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.

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.

Residence Halls and Apartments

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.

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.

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.

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.

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.

Rowan Townhouses

In December 2003, the university broke ground for a 113-unit townhouse complex along Rt. 322. The complex, which will accommodate 464 students in four and six bedroom units, features a community center and a three-story garage with 572 spaces. The project is expected to be completed in fall 2004.

Triad Apartments

Triad features 100 apartments which are carpeted, air-cooled and furnished. A variety of apartment types are available to accommodate 367 students in a co-ed living environment.

ACADEMIC CALENDAR

ACADEMIC YEAR 2004-05

Fall Semester 2004

Wednesday, September 1	Classes Begin
Monday, September 6	Labor Day (No Classes)
Monday, September 20	Convocation
Wednesday, October 20	1st Quarter Concludes
Thursday, November 11	Veteran's Day Observed (No Classes)
Thursday-Friday, November 25-26	Thanksgiving Recess (No Classes)
Monday, December 13	2nd Quarter Concludes
Tuesday-Friday, December 14-17 and Monday, December 20	Final Week
Monday, December 20	Semester Concludes

Spring Semester 2005

Tuesday, January 18	Classes Begin
Monday, March 7	3rd Quarter Concludes
Monday-Friday, March 14-18	Spring Break (No Classes)
Friday, March 25	Good Friday (No Classes)
Monday, May 2	4th Quarter Concludes
Tuesday-Friday, May 3-6 and Monday, May 9	Final Week
Monday, May 9	Semester Concludes
Friday, May 13	Commencement
Monday, May 30	Memorial Day

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 the 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 Rt. 322. Continue on Rt. 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 I676 becomes Route 42 South, 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 I295 to Route 42 South (Atlantic City). 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. 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

The Camden Campus 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 295, the Atlantic City Expressway or any of the Delaware 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.

DIRECTIONS

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.

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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, 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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