

ACADEMIC CATALOG

2010-2011



SUNY CANTON

34 Cornell Drive, Canton, New York 13617

OFFICE OF ADMISSIONS:

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www.canton.edu / admissions@canton.edu



Academic Calendar 2010-2011

FALL SEMESTER

New Students Check into Residence Halls	August 21, 2010 (<i>Saturday, 8 a.m.–4 p.m.</i>)
Returning Students Check into Residence Halls	August 22 (<i>Sunday, Noon–4 p.m.</i>)
Classes Begin	August 23 (<i>Monday, 8 a.m.</i>)
Add/Drop Sessions.....	August 23 (<i>Monday, 8 a.m.–4:30 p.m.</i>)
Last Day for Late Registrants	August 25 (<i>Wednesday</i>)
Change Period Ends (Five Class Days)	August 27 (<i>Friday</i>)
Family and Community Weekend	September 24–26 (<i>Friday–Sunday</i>)
Last Day to Withdraw from First Seven-Week Courses	October 1 (<i>Friday</i>)
Fall Recess—NO CLASSES.....	October 11 (<i>Monday</i>)
Second Seven-Week Courses Begin	October 12 (<i>Tuesday</i>)
Midterm Grades Available for Students Online	October 15 (<i>Friday, Noon</i>)
Prescheduling.....	November 1–5 (<i>Monday–Friday</i>)
Last Day to Withdraw Without Academic Penalty	November 15 (<i>Monday</i>)
Thanksgiving Recess—NO CLASSES	November 22–28 (<i>Monday–Sunday</i>)
Instruction Ends	December 6 (<i>Monday</i>)
Final Exams	December 7–11 (<i>Tuesday–Saturday</i>)
Residence Halls Close	December 11 (<i>Saturday, Noon</i>)
Final Grades Available for Students Online	December 15 (<i>Wednesday, Noon</i>)
Semester Ends.....	December 17 (<i>Friday</i>)
Last Day to Make Up Incompletes.....	February 7, 2011 (<i>Monday</i>)

SPRING SEMESTER

New Students Check into Residence Halls	January 20, 2011 (<i>Thursday, Noon–4 p.m.</i>)
Residence Halls Open (Returning Students)	January 23 (<i>Sunday, Noon–4 p.m.</i>)
Add/Drop Sessions.....	January 23 (<i>Sun. 1–4 p.m.</i>) Jan. 24–26 (<i>Mon.–Wed.</i>)
Classes Begin	January 24 (<i>Monday</i>)
Last Day for Late Registrants	January 26 (<i>Wednesday</i>)
Change Period Ends (Five Class Days)	January 28 (<i>Friday</i>)
Winter Break—NO CLASSES	February 26 (<i>Saturday, Noon</i>) through March 6 (<i>Sunday</i>)
Last Day to Withdraw from First Seven-Week Courses	March 11 (<i>Friday</i>)
Second Seven-Week Courses Begin	March 21 (<i>Monday</i>)
Midterm Grades Available for Students Online	March 22 (<i>Tuesday, Noon</i>)
Spring Break—NO CLASSES	April 9–17 (<i>Saturday, Noon–Sunday</i>)
Prescheduling.....	April 25–29 (<i>Monday–Friday</i>)
Last Day to Withdraw Without Academic Penalty	April 29 (<i>Friday</i>)
Honors Convocation	May 4 (<i>Wednesday</i>)
Instruction Ends	May 13 (<i>Friday, Noon</i>)
Final Exams	May 16–20 (<i>Monday–Friday</i>)
Commencement	May 21 (<i>Saturday, 10:30 a.m.</i>)
Residence Halls Close	May 21 (<i>Saturday, 3:00 p.m.</i>)
Final Grades Available for Students Online	May 26 (<i>Thursday, Noon</i>)
Semester Ends.....	May 27 (<i>Friday</i>)
Last Day to Make Up Incompletes.....	September 6, 2011 (<i>Tuesday</i>)



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CATALOG DISCLAIMER

Notwithstanding anything contained in this Catalog, SUNY Canton expressly reserves the right, wherever it deems advisable, (1) to change or modify its schedule of tuition and fees, (2) to withdraw, cancel, reschedule or modify any course, program of study, degree or any requirement in connection with the foregoing, and (3) to change or modify any academic or other policy. Please be advised that, due to printing deadlines, information in this Catalog may be outdated. Changes in information in this Catalog and new academic regulations, policies or programs will be published on campus and in each semester's registration materials. It is the responsibility of each student to ascertain current information that pertains to the individual's program, particularly with regard to satisfaction of degree requirements, through consultation with the student's advisor, the office of the student's dean, and other appropriate offices such as the Registrar or Financial Aid. In preparing this Catalog, efforts are made to provide pertinent and accurate information; however, SUNY Canton assumes no responsibility for Catalog errors or omissions.

SUNY Canton's Mission and Goals

Great Majors. Great Careers.

MISSION STATEMENT

SUNY Canton is dedicated to providing a progression of accessible, affordable, high-quality applied programs that enable students in the North Country, New York State, and beyond to achieve their highest potential both personally and professionally.

VISION STATEMENT

Educating the leaders of tomorrow for careers in the global technological economy.

VALUES STATEMENT/DISTINCTIVE IDENTITY

We Value...

A Student-Centered Philosophy... by keeping students' best interests at the center of everything that we do.

Excellence... by challenging everyone to perform at a consistently high level through continuous quality improvement.

Integrity... by treating others with honesty and respect during every interaction.

Success... by creating an environment that encourages maximum personal and professional growth and helps students translate that growth into meaningful action.

Diversity... by fostering a culture of inclusiveness that values individual differences, gives voice to all in the campus community, promotes the free exchange of ideas based on merit, and encourages a global perspective.

Access... by offering affordable career-oriented public higher education to motivated, mature and disciplined students through innovative delivery methods.

Sustainability... by implementing viable long-term options for resource usage, disaster management, transportation, and waste management in connection with all campus activities and weaving sustainability concepts throughout the curriculum.

Flexibility... by embracing change to better address the needs of the college community and society at large.

COLLEGE GOALS

- Offer programs in business, public service, health, liberal arts and engineering technologies that prepare students to enter rewarding careers and continue their education.
- Deliver a program of general education which provides a broad set of coherent and focused educational experiences aimed at enabling students to acquire knowledge and skills that are useful and important for all persons.
- Provide a community that enhances the development of leadership skills and creativity; encourages intellectual, ethical, and cultural growth; promotes an appreciation of our multicultural society; and advocates physical and emotional well-being.
- Promote excellence and innovation in teaching, advance scholarship and research, encourage continuous curricular evolution, and integrate technology into educational experiences.
- Design and implement extended and alternative programs to address the needs of national and international students, businesses, government agencies, and other specialized audiences.
- Advance the institution through philanthropic activities, external funding and cultivation of strong alumni relations.



About SUNY Canton

The State University of New York at Canton is a public, coeducational, residential college located on a spacious campus along the banks of the Grasse River. Its northern location places SUNY Canton close to the Adirondack Mountains, the St. Lawrence River, and major Canadian cities such as Ottawa and Montreal.

ACADEMICS

SUNY Canton is Northern New York's four- and two-year college for technology, health, management and public service. SUNY Canton offers more than 40 majors leading to bachelor's degrees, associate degrees, and one-year certificates. Numerous articulation agreements with other institutions provide further opportunities in fields such as business administration, forestry and medicine. Graduates of two-year programs are encouraged to enroll in bachelor's degree programs or begin their career immediately.

Students number approximately 3,300 and are taught by faculty who have both outstanding academic credentials and excellent technical experience. Most have on-the-job professional experience, are licensed in their fields, and are current practitioners in their professions.

CAMPUS ENVIRONMENT

Academic facilities include numerous classroom buildings containing many specialized labs for practice in technology-based disciplines. Southworth Library houses more than 65,000 books, 6,000 microforms, 300 periodical subscriptions and 1,500 video and audio recordings. The library provides access to an impressive number of electronic information research databases.

The Computer Center provides access for all students in open computer labs and networked computer classrooms. Students receive an e-mail account and can access the Internet in computer labs or via wireless network access in most areas of campus,

including all residence hall rooms. Tutoring services were rated #1 among other SUNY institutions in a student survey and are offered free of charge, enabling students to successfully adjust to college-level academic demands. Students can also check out laptop computers at the library.

SUNY Canton is in the midst of a \$45 million athletic facilities upgrade that includes a brand new ice arena, basketball courts, field house, and swimming pool. The new facilities will be completed in Spring 2011. Just completed is a synthetic turf field and baseball field. The combination of great facilities will provide our sports teams the best training and playing options within the National Athletic Intercollegiate Association (NAIA). The SUNY Canton Kangaroos compete in the Sunrise Conference for men's and women's basketball, cross country, soccer, softball and baseball. The men's ice hockey team competes in the American Collegiate Hockey Association.

The four existing residence halls were newly renovated for Fall 2008. They house 950 students in single rooms, doubles, triples and suites. Special theme floors allow students to select living and learning options best suited to their interests. There's even a residence hall that allows small pets. Chaney Dining Center provides meals for residential students, and snack bars located around the campus make it easy to grab a quick bite to eat.

Construction of a brand new 300-bed, apartment-style residence hall is underway and is expected to be completed Fall 2011.

There are numerous student clubs, and the Richard W. Miller Campus Center serves as the hub for a wide range of cultural and recreational activities. Since the campus is located in a residential community that welcomes college/community interaction, students find that SUNY Canton provides a fine blend of college learning and community involvement.

Many SUNY Canton alumni pursue careers in the technologies. Two-thirds of each graduating class choose to enter productive

careers directly after graduation. Each year, nearly 100 percent of these graduates are successful in finding jobs for which SUNY Canton prepared them. The remaining third of the graduating class transfers to bachelor's programs at SUNY Canton or other institutions, or to graduate schools.

CAMPUS HISTORY

Originally founded in 1906 as the School of Agriculture (SOA) at St. Lawrence University, SUNY Canton was the first postsecondary, two-year college in New York authorized by the Legislature. In 1941, SOA was renamed the New York State Agricultural and Technical Institute (ATI). ATI became a member college of the State University of New York in 1948. To recognize advanced technology programs added in the 1950's and '60's, the College underwent another name change in 1965, this time becoming the State University of New York Agricultural and Technical College at Canton or ATC. In 1987, the University's Board of Trustees authorized yet another name change to the College's present designation as State University of New York College of Technology at Canton.

Beginning a new era for the College, in 1997 SUNY Canton received bachelor's degree granting approval from the SUNY Trustees and the Governor of New York State. Since 1997, nearly 20 bachelor's degrees have been approved, and several others are in development. Three brand new bachelor's degree programs were recently approved for Fall 2010.

LOCATION

The village of Canton is situated in the St. Lawrence Valley near the northern foothills of the Adirondack Mountains and the scenic Thousand Islands. The location is perfect for those who enjoy outdoor activities, which range from camping, boating and hiking to cross-country and downhill skiing. Lake Placid, site of the 1980 winter

Olympics, is less than two hours away and offers a multitude of activities throughout the year. For those who wish to have a more metropolitan experience, Montreal and Ottawa are approximately two hours north across the Canadian border. These two cities afford a variety of attractions for shopping, plays and concerts as well as beautiful parks and recreational facilities.

The College is located on the outskirts of the village along the Grasse River, which adds to its beauty and relaxed atmosphere. The village is a short walk from campus and offers a variety of shops and restaurants.

ACCREDITATIONS

SUNY Canton is accredited by the Middle States Commission on Higher Education, 3624 Market Street, Philadelphia, PA 19104-2680 — Telephone (267) 284-5000, Fax (215) 662-5501. The Middle States Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The programs of Air Conditioning Engineering Technology, Civil Engineering Technology, Electrical Engineering Technology, and Mechanical Engineering Technology are accredited by the Tech-

nology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). The Veterinary Science Technology program is accredited by the American Veterinary Medical Association. The National League of Nursing Accrediting Commission has accredited the Nursing, AAS program. The Physical Therapist Assistant program is accredited by the Commission on Accreditation in Physical Therapy Education. The Dental Hygiene, AAS program is accredited by The American Dental Association (ADA), Commission on Dental Accreditation (CODA). The Automotive Technology program is certified by the National Automotive Technicians Education Foundation (NATEF) and the National Institute for Automotive Service Excellence (ASE).

CENTER FOR LIFELONG LEARNING

The Center for Lifelong Learning offers quality continuing education and training. Programs are designed for a wide range of individuals and groups, serving high school students through college seniors, medical professionals, Emergency Medical Technicians, business and industry clients and more. To learn more about the quality education and training delivered through the Center of Lifelong Learning, go to the website www.canton.edu/lifelong_learning. Programs include:

Building Performance Institute (BPI): Building Analyst and Envelope Professional Training sessions available in Canton and Plattsburgh.

Continuing Education for Dental Hygienists: Local Anesthesia Infiltration and Nitrous Oxide Analgesia course offered.

Motorcycle Rider Courses: Motorcycle Safety Foundation Basic Rider Courses will be offered throughout the summer months.

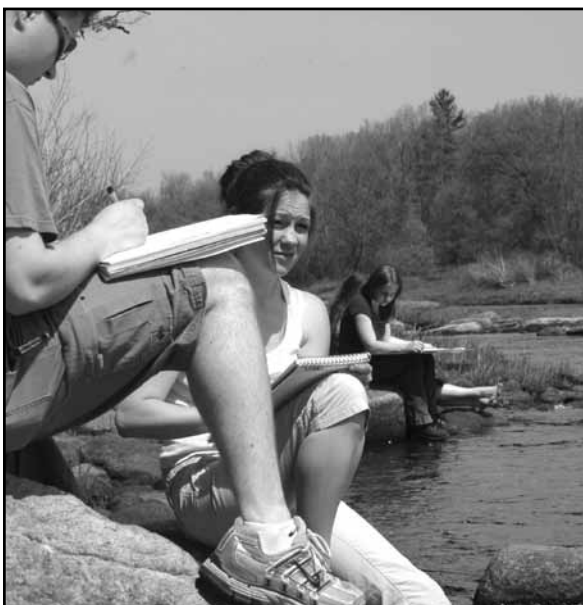
Non-Credit Courses (OnLine): Business, supervision and management skills programs. Internet and computer skills courses. Over 200 on-line courses available.

Security Guard Training: Information on Security Guard Training dates.

ALUMNI ASSOCIATION

The Alumni Association maintains contact between the College and its alumni, keeping them informed about the College's programs and activities and encouraging their participation.


The Association works with the Canton College Foundation in coordinating the College's Annual Fund program to provide financial support for a variety of college activities. As a result of these efforts, funds can be provided for student scholarships and emergency loans, faculty research and special projects, and other activities in need of financial support.



ASSOCIATED COLLEGES OF THE ST. LAWRENCE VALLEY

SUNY Canton is a member of the Associated Colleges of the St. Lawrence Valley, a consortium that also includes Clarkson University, SUNY Potsdam, and St. Lawrence University. The Associated Colleges, with approximately 12,500 students in two villages 11 miles apart, expands opportunities through such activities as cross-registration for courses at the other three campuses, coordination of social events, and library privileges at all four college libraries.

Degree Programs



Degree Programs

CODE	PAGE	PROGRAM TITLE	Prerequisite Regents Exams (NYS)	ALGEBRA (MATH A)	GEOMETRY (MATH A	ALGEBRA 2/TRIG.	BIOLOGY (75+)	CHEMISTRY	PHYSICS	ENGLISH (75+)	ASSOCIATE DEGREE
				(75+)	+ ONE YEAR) (75+)	(MATH B) (75+)					
*BACHELOR'S DEGREES (ACT/SAT required)											
1865	51	Alternative & Renewable Energy Systems, <i>B. Tech.</i>		•				•		•	
2235	52	Civil and Environmental Technology, <i>B. Tech.</i>		•						•	
1359	53	Criminal Investigation, <i>B. Tech.</i>		•						•	
1911	54	Criminal Justice: Law Enforcement Leadership, <i>B. Tech.</i>		•						•	
0148	55	Dental Hygiene, 2 + 2, <i>B. Tech.</i>									•
2234	56	Electrical Technology, <i>B. Tech.</i>		•						•	
1864	57	Emergency Management, <i>B. Tech.</i>		•						•	
0282	58	Finance, <i>BBA</i>		•						•	
1525	59	Funeral Services Administration, <i>B. Tech.</i>		•						•	
2026	60	Graphic and Multimedia Design, <i>B. Tech.</i>		•						•	
0253	61	Health Care Management, <i>B. Tech.</i>		•			•	•		•	
1935	62	Industrial Technology Management, <i>B. Tech.</i>		•						•	
2045	63	Information Technology, <i>B. Tech.</i>		•						•	
0818	64	Legal Studies, <i>B. Tech.</i>		•						•	
1645	65	Management, <i>BBA</i>		•						•	
0291	66	Nursing, 2 + 2, <i>BS in nursing</i>									•
0182	67	Sports Management, <i>BBA</i>		•						•	
1672	68	Veterinary Services Management, 2 + 2, <i>B. Tech.</i>									•

*ASSOCIATE DEGREES (ACT/SAT recommended)

0630	69	Accounting, <i>AAS</i>	•							•	
0444	70	Air Conditioning Engineering Technology, <i>AAS</i>		•							
0473	71	Apprentice Training: Industrial Trades, <i>AAS</i>	must have or be working on BOCES Journeyman's Cert.								
0525	72	Automotive Technology, <i>AAS</i>	•								
0632	73	Business Administration, <i>AAS</i>	•							•	
0671	73	Business Administration-Transfer, <i>AS</i>		•						•	
0517	74	Civil Engineering Technology, <i>AAS</i>		•							
0581	75	Computer Information Systems, <i>AAS</i>	•								
1162	76	Construction Technology: Management, <i>AAS</i>	•								
0640	77	Criminal Justice, <i>AAS</i>	•							•	
0545	78	Dental Hygiene, <i>AAS</i> **		•		•	75+			•	
1327	79	Early Childhood, <i>AS</i>		•						•	
0699	80	Electrical Engineering Technology, <i>AAS</i>		•							
0530	81	Engineering Science, <i>AS</i>			•		•	•	•		
2208	82	General Technology, <i>AAS</i>		•							
0688	83	Individual Studies, <i>AAS</i>									
0250	84	Liberal Arts & Sciences: General Studies, <i>AA, AS</i>		•						•	
0493	85	Mechanical Engineering Technology, <i>AAS</i>		•							
0622	86	Nursing, <i>AAS</i> **		•		80+	•			•	
0489	87	Physical Therapist Assistant, <i>AAS</i>		•		•	•			•	
1179		Telecommunications Technology: Verizon, <i>AAS</i>	Verizon employees only								
0521	88	Veterinary Science Technology, <i>AAS</i>		•		•	•			•	

*ARTICULATION AGREEMENTS

0250/varies	98	Environmental Science & Forestry, 2+2 w/SUNY ESF			•	•	•			•	
0620/1086	98	Forest Technology, 1+1 w/SUNY ESF	•			•					
0250	98	Upstate Medical Univ. Early Admissions Program			•	•	•			•	

*CERTIFICATE PROGRAMS

1387-Air Conditioning Maintenance & Repair, <i>p. 89</i>	0921-Heating & Plumbing Service, <i>p. 92</i>
0955-Electrical Construction & Maintenance, <i>p. 90</i>	1632-Powersports Performance and Repair, <i>p. 93</i>
1774-Health Science Career Studies, <i>p. 91</i>	0938-Practical Nursing, ** <i>p. 94</i>

* Refer to Programs of Study (pages 50-98) for specific requirements.

** Selective Admission (see page 78, 86, and 94 for more information).

If you have questions, are a transfer or an out-of-state student, please call the Office of Admissions (1-800-388-7123) for more information.

DECLARING A MAJOR

Candidates for admission to SUNY Canton must have earned a high school diploma with a minimum 75 cumulative average or a GED with a minimum score of 245/2450. Minimum high school course prerequisites to begin the curriculum selected are listed on the previous page. Additional prerequisites are listed on each program page beginning on page 51.

Full-time SUNY Canton students selecting an associate degree must declare a major by the end of two semesters (24 college credit hours). Full-time students pursuing a baccalaureate degree must declare a major by the end of three semesters (36 college credit hours).

ADMISSION TO CANTON

Admission to the State University of New York at Canton is based on the academic and personal qualifications of applicants and is made without regard to sex, age, race, color, creed, national origin, sexual orientation, military status, or disability of individuals. Admission will be offered to qualified applicants whose academic preparation and experience indicate a foundation for success in their chosen curricula. For more information, contact the Office of Admissions at 315-386-7123, 800-388-7123 or www.canton.edu.

HOW TO APPLY FOR ADMISSION

An application for admission may be completed online at www.canton.edu/apply or www.suny.edu/student. Paper copies can be obtained by contacting our Office of Admissions. The application form must be completed by the student and high school guidance counselor and sent directly to the Application Services Center, State Univer-

sity of New York, P.O. Box 22007, Albany, NY 12201. In addition to the application form, applicants must submit all secondary school transcripts and/or score reports for the General Equivalency Diploma, and any previous college transcripts to the Office of Admissions at SUNY Canton.

WHEN TO APPLY FOR ADMISSION

Prospective students are encouraged to submit their application before April 1 for the fall semester and December 1 for the spring semester. Decisions with respect to admission are made on a rolling basis, unless otherwise specified, beginning November 1st for candidates to either semester. However, it is recommended that students apply as early as possible. An applicant for nursing or dental hygiene is recommended to apply early as review of candidates will begin immediately. Candidates for admission to the spring semester should note that it is not possible to commence studies in all curricula, and they should carefully review the *SUNY Application Viewbook* for the listing of available programs.

ADMISSION AS FRESHMEN

Candidates for admission to the College must meet the following minimum requirements:

1. Be a graduate of a secondary school accredited by its State Education Department, hold a high school equivalency diploma (GED) with a minimum score of 245/2450, or meet certain home-school criteria.

IEP diplomas are not considered. Students with an IEP diploma must pass the GED with a score of 245/2450.

2. Have completed, with a satisfactory level of achievement, the minimum course

prerequisites for the curriculum selected.

3. Demonstrate academic preparation necessary for success in the curriculum selected.

The most important criterion for admission as freshmen directly from high school is the secondary school record (grade point average, rank-in-class, pattern of course work). For candidates not applying directly from high school, additional criteria include work experience, special skills, or unusual circumstances interfering with past performance.

The Office of Admissions reserves the right to request additional information, and applicants may, of their own accord, submit additional supportive documents.

HOME-SCHOOLED STUDENTS

Home-schooled students must provide one of the following as part of their application for admission to SUNY Canton:

Students of compulsory school age must provide one of the following:

1. A high school diploma from an accredited state secondary school.
2. Letter from Superintendent of Schools certifying that the student has completed the substantial equivalent of a four-year high school course. In addition, please provide a copy of the student's coursework and any other documents that will aid in the decision process (e.g. ACT/SAT scores).

Students beyond compulsory school age must provide one of the following:

1. Option #1 as stated above.
2. Option #2 as stated above.
3. GED with a score of 245/2450.
4. Proof of passing and completing all requirements for the required five Regents examinations or approved alternative assessments for these examinations.
5. Completing 24 semester hours or the equivalent as a recognized college-level or

certificate at a degree-granting institution.

6. Proof of previously earning and been granted a degree from a degree-granting institution.

The above is in compliance with section 3.47 of the Rules of Regents and with section 100.10 of the Regulations of the Commissioner of Education.

In addition to submitting the above, students are required to take the Accuplacer exam for placement purposes.

PLACEMENT TESTING

SUNY Canton does not require, but strongly encourages, prospective associate degree students to take the SAT or ACT exams. Prospective bachelor degree students are required to take either the SAT or ACT exams. All new, matriculated freshmen students will be assessed for proper placement in English and Math courses **prior to the first day of class**. Students may be exempt from the Accuplacer exam or locally produced placement exam if they meet the following criteria:

ENGLISH/READING:

- ACT scores of 21 or better on the English/Reading sections or
- SAT scores of 500 or better on the Verbal section or
- English Regents score of 80 or better

MATH:

- ACT score of 21 or better on the Math section or
- SAT score of 540 or better on the Math section or
- Math A Regents score of 80 or better and/or Integrated Algebra Regents score of 80 or better

Since the results of the exam could affect the student's schedule, it is recommended to take the test in a timely fashion. If the student should need preparatory courses, it may be necessary to extend the academic program to earn an associate or baccalaureate degree. This will not affect students enrolled

in one-year certificate programs.

Students required to test will be notified after acceptance into the College. Information regarding the Accuplacer placement test can be found at www.canton.edu/placement_testing.

TRANSFER STUDENT ADMISSION

Applicants, who have previously registered at another college or university, following graduation from high school, are considered transfer students. In addition to completing the SUNY Application for Admission, transfer students must also submit an official transcript from each college or university previously attended and an official high school transcript and/or GED score report. Transfer students must meet specific GPA and credit hour requirements, depending on the number of semesters of college work taken. The Office of Admission will use the college's re-registration requirements as a guideline to determine the required GPA and credit hours for transfer applicants (see page 38). Some degree programs have specific requirements for admission. Transfer students should contact the Office of Admissions for further information at 1-800-388-7123.

For all transfer students, equivalency credit for course work shall be determined by the respective School Dean. A preliminary evaluation of coursework will be sent after student's admission or can be requested by contacting the Office of Admissions. Courses completed at another institution transfer only as credits, i.e., letter grades and quality points do not transfer.

The Office of Admissions reserves the right to request additional information, and applicants may, of their own accord, submit additional supportive documents.

READMISSION

Students are considered to be readmits if they meet one of the following criteria: (1) have not attended classes as a matriculated

student for at least one semester and have not attended another college; or (2) have graduated and have not attended another college since graduation; or (3) planning to graduate from SUNY Canton and continue in a different degree program (i.e. associate degree to bachelor's degree).

Students must complete a Readmission Application available at the Office of Admissions or online at www.canton.edu.

ADMISSION INTERVIEWS

Prospective students and their families are strongly encouraged to visit the campus and discuss college plans with an admissions counselor. Admissions interviews are offered Monday through Friday, as well as at Open Houses on select Saturdays. The interview provides an opportunity to discuss curricula and career choices, college life, and financial aid at the College. All visiting students and their families will be offered a tour of the campus. Tours are offered at 10 a.m. and 2 p.m., Monday through Friday.

Please contact the Office of Admissions at 800-388-7123 to schedule a visit.

ADVANCED PLACEMENT AND PROFICIENCY EXAMINATION CREDIT

SUNY Canton has a proficiency examination program to serve students who seek recognition for achievement acquired outside the conventional college classroom. Admission with advanced standing may be granted on the basis of satisfactory completion of College-Level Examination Program (CLEP) Subject Examinations, the Advanced Placement Program, both administered by the College Entrance Examination Board, and the International Baccalaureate (IB) examinations. Further, the College participates in selected Excelsior College Examinations (ECE) sponsored by the New York State Education Department. Interested students should check with the Office of Admissions regarding credits awarded for these examinations.

CREDIT FOR PRIOR LEARNING

FROM OTHER INSTITUTIONS OF HIGHER LEARNING

Applicants for admission who have attended other institutions of higher learning may be admitted with advanced standing depending upon the courses completed and grades earned. Applicants for advanced standing should apply for admission in the same way as other applicants; but in addition, they must request the Registrar of all institutions of higher learning which they have attended to forward official transcripts of work completed to the College. SUNY Canton accepts credit for courses transferred with a grade of C or above. Prior credits which apply to an earned Associate's degree, including grades of D and above, will be accepted in transfer and may be applied towards the total credits for a SUNY Canton bachelor's degree. This policy may exempt credits received in the core curriculum when program specific grade requirements supersede this policy.

The College has formalized transfer agreements with a number of higher education institutions. Acceptance of satisfactorily completed credits taken at the prior institution is guaranteed upon transfer to SUNY Canton as specified in the applicable transfer agreement. Credit is awarded at the discretion of the School Dean.

CHANGE OF MAJOR

Upon changing a major, all prior college credit, both institutional and transfer, is evaluated for applicability to the new major. All prior SUNY Canton courses which do not meet requirements of the new major are excluded from credits earned and GPA calculations. Only those transfer credits which fulfill requirements of the new major will be recorded as transfer credit and included in credit hours earned. This policy pertains to all changes whether through readmission or change of major.

BY PROFICIENCY EXAMINATION

1. Published Examinations: Admission with advanced standing may be granted on the basis of satisfactory completion of published proficiency examinations. The College participates in the College Level Examination Program (Subject Examinations) and the Advanced Placement Program, both of which are administered by the College Entrance Examination Board; and the Regents College Proficiency Examination Program sponsored by the New York State Education Department.
2. Locally Developed Examinations: At the discretion of the school or departmental faculty, advanced standing may be granted for satisfactory completion of proficiency examinations developed by the College faculty and in accordance with the following policy:
 - a. Locally designed and administered exams are available only to students who are matriculated at SUNY Canton.
 - b. Such exams will consist of written and/or practical application tests as deemed appropriate.
 - c. Any credit earned via such examinations will not be (a) counted as residency credit, included on official enrollment reports unless requested specifically, (c) included in a faculty member's reported workload, and (d) used in calculating the campus FTE credit report.
 - d. Any credit earned must fulfill degree requirements.
 - e. Such exams will be administered prior to a student's enrollment in the equivalent course for which a proficiency exam is requested.
 - f. Satisfactory completion of a locally designed and administered proficiency exam will be recorded on the student's transcript following evidence of progress toward an

educational objective.

- g. A student is not permitted to enroll in or repeat the equivalent course for which a proficiency exam has been satisfactorily completed.
- h. A student may not repeat the proficiency exam administered for a specific course or portion thereof if not satisfactorily completed.
- i. Copies of all locally designed proficiency examinations will be placed on file with the Vice President for Academic Affairs and the appropriate School Dean.
- j. Forty dollars (\$40) per credit hour will be charged for all locally designed and administered proficiency examinations.

FROM SECONDARY SCHOOL

The College may grant credit for selected courses completed at the secondary level. Transfer credit will be conditional upon evaluation of in-kind courses and experiences by the appropriate Dean of the School in which the credit will be granted. Approved secondary course work will match or exceed that offered on campus. The course must be subject to an articulation agreement. Students requesting credit must demonstrate superior performance and have the recommendation of the appropriate secondary school faculty member and endorsement of the high school principal.

CREDIT FOR LIFE EXPERIENCES

Credit for Life Experiences may be granted to students enrolled in any program, at the discretion of the faculty of that program, a review committee, and the Dean of the School in which the program is located. NOTE: Students can apply for Life Experience Credit for a course only if a proficiency exam or a CLEP exam does not exist for that course. The maximum number of credit hours of Credit for Life Experiences that can be applied toward an associate degree is 15 and toward a baccalaureate degree is

30. Such credit will be evaluated according to the following procedure:

1. The student must apply for Life Experience Credit during the first semester of matriculation in the program. Applicants must complete the Application Form for Credit for Life Experiences and submit the form to the Dean of the School in which the program is located.
2. The Dean, in consultation with other Deans as appropriate, will arrange for an advisor selected from the School's faculty to assist the students in preparing the necessary documentation in support of the number of credits requested. The portfolio must clearly evidence mastery of a preponderance of the learning outcomes as listed in the course outline(s) in order for a request to be viable.
3. The student will submit a formal letter of request and a portfolio containing all documentation and pertinent adjunct supportive material to the advisor within the first ten weeks of the student's first matriculated semester. The student will be notified of the decision within five weeks after submitting the portfolio. Only enrollment during the College academic year will count as the first semester of matriculation (Summer school IS NOT part of the College academic year).
4. The portfolio will be evaluated by the review committee, which will be comprised of the advisor, a second faculty member of the School in which the program is housed, appointed by the advisor, and an Academic Standards Committee (ASC) faculty member, appointed by the Academic Standards Committee, who is not a member of the School in which the program is housed. The ASC member of the review committee may request review of the portfolio by the entire Academic Standards Committee.
5. The advisor will provide the review committee with a copy of the most recent appropriate course outline(s), including

detailed learning objectives.

6. The review committee will submit its recommendation and the recommendation of the Academic Standards Committee, if appropriate, to the Dean of the School and forward a copy of the recommendation to the Provost.
 - a. Credit for Life Experiences cannot be granted for courses in which the applicant has been, or is, enrolled at SUNY Canton.
 - b. Credit determinations in discipline-related fields (e.g., electrical, humanities, social work, etc.) will be made by faculty members in the respective or related department.
7. Following the decision of the Dean, a notice will be forwarded to the student, the advisor, the Provost, and the Registrar regarding the amount of credit granted and the courses for which the credit will be counted in the student's program.
8. Forty dollars (\$40) per credit hour will be charged for the review of the materials. This fee must be paid and registration procedures completed prior to the beginning of the review.
9. Forty dollars (\$40) per credit hour will be charged for prior learning credit granted. This fee must be paid prior to the granting of credit.
10. Credit will be recorded as "CR" on the student's official transcript under the appropriate course number, but only following the satisfactory (2.0) completion of one full-time semester or its equivalent in the student's program.

MILITARY TRAINING AND EXPERIENCE

The College may grant advanced standing for military training and experience as recommended by the American Council on Education. Where courses, service school experience, or subject matter exams are applicable to a curriculum in which a student is enrolled at this college, credit will be

determined using the publication "Guide to the Evaluation of Educational Experiences in the Armed Services."

MANNER OF RECORDING ADVANCED STANDING

Official transcripts of this college will include the appropriate number of credits granted for (1) courses transferred in from other higher education institutions, (2) proficiency examinations completed satisfactorily, (3) validated life experiences, and/or (4) military training and experience as "CR" credit only and be excluded in the calculation of a student's cumulative honor point index.

ARMED FORCES CREDIT

Some courses provided by the Armed Forces may be the equivalent of college courses and transfer credit may be obtained. When courses, service school experience, or subject matter exams are applicable to a curriculum, credit will be determined using the American Council on Education publication entitled *Guide to Evaluation of Educational Experiences in the Armed Services*.

EARLY ADMISSION PROGRAM

Early admission will be granted to an applicant who has completed grade eleven of an accredited secondary school, meets the admission criteria for the program applied for, has maintained a strong academic average, and is recommended for college by the principal or guidance counselor. A contract detailing specific arrangements for completing the requirements for high school graduation must be made between the student, the high school principal, and the Director of Admissions. For further information, please contact the Office of Admissions. Arrangements for this contract are the responsibility of the applicant. Students are not eligible to

receive financial aid until after their high school class graduates. The Early Admission Program was established to offer high school seniors an academic challenge and to jump-start their college career.

SUNY UPSTATE MEDICAL UNIVERSITY COLLEGE OF HEALTH PROFESSIONS EARLY ADMISSION PROGRAM

The SUNY Upstate Medical University Early Admission Program with SUNY Canton is a joint admissions program whereby students enroll at SUNY Canton for two years, complete an associate degree, and are then guaranteed admission into one of the SUNY Upstate Medical University College of Health Professions upper division programs. An exception to this is the Doctorate of Physical Therapy which requires a bachelor's degree prior to entry into the DPT Program at Upstate Medical University.

The degree programs offered through the College of Health Professions Early Admission Program are: Cardiovascular Perfusion, Medical Imaging Services, Medical Technology, Nursing, Radiation Therapy Technology, Respiratory Therapy and Cardiorespiratory Sciences, and Physical Therapy DPT.

This program is a unique opportunity for students with a demonstrated commitment to a career in the health professions and a strong record of achievement in high school. Students accepted into this program are required to have completed at least three years of Regents or honors level courses in math and science. Students applying to the Early Admissions Program should be in the upper quartile of their class and should have competitive SAT scores. They must demonstrate a strong leadership background and show participation in extracurricular activities.

To apply for the SUNY Upstate Medical University College of Health Professions Early Admissions Program, students must

complete the SUNY application for admission applying for Liberal Arts & Science: General Studies at SUNY Canton noting joint admission with SUNY Upstate Medical University at Syracuse. **THE STUDENT DOES NOT COMPLETE THE SUNY APPLICATION FOR UPSTATE MEDICAL UNIVERSITY.** The student must contact the Office of Admissions, Upstate Medical University at Syracuse, (315) 464-4670, to request application materials specifically for the Early Admission Program. An admissions interview will be required.

For further details, contact the SUNY Canton Office of Admissions, (315) 386-7123 or (800) 388-7123.

ADMISSION PROCEDURES AND REQUIREMENTS FOR INTERNATIONAL STUDENTS

An application for admission may be completed online at www.canton.edu/apply or www.suny.edu/student. Paper copies can be obtained by contacting our Office of Admissions. The application form must be completed by the student and sent directly to the Application Services Center, State University of New York, P.O. Box 22007, Albany, NY 12201. In addition to the application form, applicants must submit all supporting documents, secondary school transcripts, and any previous college transcripts to the Office of Admissions at SUNY Canton. Transcripts from educational institutions outside the United States need to be evaluated by an accredited evaluation service such as World Education Services (www.wes.org) or International Education Research Foundation (www.ierf.org)

A \$40.00 non-refundable application fee (in U.S. funds) must accompany the application. This fee may not be waived for any reason. In the interest of time, it is recommended that the fee is paid by credit card when an online application is submitted. As an alternative method of payment, certified

check can be made payable to SUNY ASC.

To be assured for full consideration for Fall admission, the application must be submitted no later than April 15th. If applying for Spring admission, the application must be completed with all supporting documents no later than September 15th. It may take several months to obtain the appropriate visa, so it is recommended that students apply for admission as early as possible.

Students for whom English is a second language, a Test of English as a Foreign Language (TOEFL) score of at least 500 (paper), 173 (computer) or 61 (Internet-Based) is required for admission consideration. Other tests will be looked at for admission if the TOEFL is not offered in your area. The English Proficiency Report must be filled out by the respective professional and accompany the other supporting documents. Please contact admissions regarding any questions.

Additional supporting documents required include an autobiographical statement, a passport copy with the biographical information and photograph, and the Foreign Student Financial Statement. This form **MUST** be completed and certified by the appropriate financial institution. Please make sure the form is accurate and signed in all appropriate places to avoid delays with the application processing.

The application will be reviewed when all required information is received. All supporting documents should be sent to the attention of the International Admissions Counselor: Office of Admissions, SUNY Canton, 34 Cornell Drive, Canton, NY 13617-1098, USA

EX-OFFENDERS/ DISCIPLINARY DISMISSAL FROM COLLEGE

Potential students who are ex-offenders or have been dismissed for disciplinary reasons from a college will have their application reviewed under a policy established

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in accordance with section 23A of the New York State Correction Law. Copies of this policy are available from the Office of Admissions. Individuals who are ex-offenders or have been dismissed for disciplinary reasons from a college and who wish to apply are required to identify themselves as such and should request a copy of the policy. Individuals who do not disclose this information prior to admission may have their admission rescinded at the discretion of the Administration.

ARTICULATION AGREEMENTS

4+1 PROGRAMS

SUNY Canton has established agreements with master's degree programs at SUNYIT. These agreements provide graduates of SUNY Canton's baccalaureate degrees advanced standing in master's degree programs. Once admitted by SUNYIT, some of the courses taken in the student's baccalaureate degree program will transfer into the master's degree program. For more information regarding this program, please contact the Dean of Business and Liberal Arts.

SUNY CANTON	SUNYIT
Finance Management Health Care Mgmt. Information Tech. Facilities Operation	Masters of Science in Health Services Admin. (MSHSA)
Finance Management Health Care Mgmt. Information Tech. Facilities Operation	Masters in Business Administration (MBA)
Finance Management	Masters of Science in Accountancy (MSA)

2+2 PROGRAMS

SUNY Canton has established articulation agreements with community colleges, whereby students, upon completion of an associate degree at the community college, can transfer into a SUNY Canton baccalaureate program.

reate program.

ADIRONDACK COMM. COLLEGE	SUNY CANTON BACHELOR DEGREE
Accounting	Finance or Management
Business Admin., AS & AAS	Finance or Management
Radiologic Technician	Health Care Mgmt.
Nursing	Health Care Mgmt.
Criminal Justice: Police Science	Criminal Investigation

ERIE COMMUNITY COLLEGE	SUNY CANTON BACHELOR DEGREE
Dental Hygiene, AAS	Dental Hygiene, B.Tech.

FULTON-MONTGOMERY COMM. COLLEGE	SUNY CANTON BACHELOR DEGREE
Accounting	Finance or Management
Business Admin., AS & AAS	Finance or Management
Liberal Arts & Sci.: General Studies	Management
Criminal Justice	Criminal Investigation

HARPER COLLEGE	SUNY CANTON BACHELOR DEGREE
Dental Hygiene, AAS	Dental Hygiene, B.Tech.

HERKIMER COMM. COLLEGE	SUNY CANTON BACHELOR DEGREE
Accounting	Finance or Management
Business Admin., AS & AAS	Finance or Management
Small Business Mgmt.	Finance
International Business	Management
Marketing	Management
Criminal Justice	Criminal Investigation

HUDSON VALLEY COMM. COLLEGE	SUNY CANTON BACHELOR DEGREE
Business Admin., AS & AAS	Finance or Management

JEFFERSON COMM. COLLEGE	SUNY CANTON BACHELOR DEGREE
EMT-Paramedic	Health Care Mgmt.
Nursing	Health Care Mgmt.
Individual Studies	Health Care Mgmt.

Criminal Justice, AS	Criminal Investigation
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JOHNSON COLLEGE	SUNY CANTON BACHELOR DEGREE
Veterinary Sci. Tech.	Veterinary Services Mgmt.

NORTHHAMPTON COMM. COLLEGE	SUNY CANTON BACHELOR DEGREE
Dental Hygiene, AAS	Dental Hygiene, B.Tech.

PASADENA CITY COLLEGE	SUNY CANTON BACHELOR DEGREE
Dental Hygiene, AAS	Dental Hygiene, B.Tech.

TYLER JUNIOR COLLEGE	SUNY CANTON BACHELOR DEGREE
Dental Hygiene, AAS	Dental Hygiene, B.Tech.

WAYNE COUNTY COMM. COLLEGE DISTRICT (WCCCD)	SUNY CANTON BACHELOR DEGREE
Dental Hygiene, AAS	Dental Hygiene, B.Tech.

SUNY Canton has also established articulation agreements with several four-year colleges whereby a SUNY Canton student, upon completion of the associate degree and specified courses, can transfer to a participating four-year college in a parallel program with junior-level status.

The colleges which participate with SUNY Canton in the 2+2 programs are:

COLLEGE	BACHELOR DEGREE CURRICULA
SUNY College of Agriculture and Life Sciences at Cornell	All parallel programs
SUNY Upstate Medical University at Syracuse	Cardiovascular Perfusion Medical Imaging Science Medical Technology Nursing Radiation Therapy Respiratory Care
SUNY College of Environmental Science & Forestry at Syracuse	All parallel programs
SUNY Institute of Technology at Utica-Rome	Engineering Technology Business & Public Mgmt. Nursing All parallel programs

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SUNY Oswego	All parallel programs
SUNY Plattsburgh	All parallel programs Nursing Child Family Services Human Services Environmental Science
SUNY Potsdam	All parallel programs
SUNY Alfred	Mechanical Eng. Tech. Electrical Eng. Tech. Electro-Mech. Eng. Tech.
Empire State College	All parallel programs
SUNY Cobleskill	Child Care: Development
Mercy College	Veterinary Technology
Clarkson University	N.H. Biomedical transfer program (biology, chemistry, other sciences)
Paul Smiths College	Natural Resources: Management & Policy Nat. Resources: Env. Sci. Fisheries and Wildlife Sci.
Houghton College	Parallel Programs
SUNY Morrisville	Automotive Technology

Examples of other colleges SUNY Canton graduates transfer to include:

- Rensselaer Polytechnic Institute
- Rochester Institute of Technology
- SUNY Binghamton
- SUNY Buffalo

Admission is not guaranteed in a 2+2 agreement. Students must meet specific criteria as outlined in the signed agreement between the two institutions, as is the case with us in receiving 1+1 candidates from community colleges. Those interested in further information regarding these programs should contact SUNY Canton's Office of Admissions.

1+1 ASSOCIATE DEGREE PROGRAMS

SUNY Canton has established a variety of cooperative program agreements with other institutions of higher education.

Arrangements have been made with several community colleges whereby students take one year at the first college and the

final year at SUNY Canton, from which the associate degree is granted.

A separate application must be filed for each year. For further information concerning this program, please contact the Office of Admissions.

COMMUNITY OR SUNY COLLEGE	ASSOCIATE DEGREE CURRICULA
Adirondack	Veterinary Sci. Tech.

Arrangements have been made with College of Environmental Science and Forestry/Wanakena whereby students take the first year at SUNY Canton and the final year at the appropriate college. For further information concerning these programs, please contact the Office of Admissions.

COLLEGE 2nd YEAR	ASSOCIATE DEGREE CURRICULA
SUNY EFS, Wanakena	Forest Technology

ARTICULATION AGREEMENTS WITH BOCES

Currently, SUNY Canton has signed agreements with the following BOCES Centers. Students are encouraged to speak to their guidance counselor to learn the specifics about the agreement for their particular program and BOCES Center. We are continuously adding to our list of participating centers, therefore, students should check with their counselor to determine whether a particular center has established an agreement since this printing.

- Adirondack Educational Center
- Broome-Tioga Occupational Technical Center
- Burton Ramer Technical Career Center
- Cayuga-Onondaga BOCES
- Champlain Valley Education Services (CV-TEC)
- Charles G. May Center
- Chenango Campus

- Columbia-Greene Educational Center
- Eastern Monroe Career Center
- Finger Lakes Area Vocational Center
- Genesee Valley BOCES
- Harkness Center
- Howard G. Sacketts Technical Center
- Jefferson Lewis BOCES
- Kenton Center
- Myers Education Center
- North Franklin Educational Center
- Northwest Tech
- Onondaga-Cortland-Madison, Syracuse
- Onondaga-Cortland-Madison, Cortland
- Oneida-Herkimer-Madison
- Potter Road Occupational Center
- Rensselaer Educational Center
- Robert W. Harrold Education Campus
- John W. Harrold Education Campus
- Yandon - Dillion Education Center
- St. Lawrence Lewis BOCES
- Seaway Tech
- Southern Adirondack Education Center
- Sullivan County Vocational Technical Center
- TEC Center
- Vocational Educational Center
- Washington-Saratoga-Warren-Hamilton-Essex

BOCES Program	SUNY CANTON Curriculum	Course—Credits
Auto Tech./ Auto Mech Auto Service	Auto Tech.	Auto Services—2 Auto Electrical—3
Metalwork- ing Tech.	Automotive Technology	Basic Welding-2
Heating, Ventilation, Air, CAD/CAM (Computer Drafting)	Air Cond.	Refrigeration—2 Computer Draft.—3

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Electronics I & II	Electrical Eng. Tech.	¹ Digital Circuits-2
Environmental Technology	Alt. & Ren. Energy Systems, Industrial Tech. Mgt., Mech. Eng.	Computer Draft.-3
Information Technologies	Computer Info. Sys., Information Tech.	Survey of Information Tech.-3 Computer Concepts & Operating Sys.-3
Early Childhood Occupations	Early Childhood	3 Wellness in Young Children-3
Business Computer Tech. 1 & 2	Bus. Admin., Computer Info. Systems	1 Intro. Info. Tech.-3
Intro. to Criminal Justice	Crim. Justice, Crim. Invest., CJ: Law Enforcement Ldrshp., Emerg. Mgt.	Intro. to Criminal Justice-3 General Elective-3
Certified Nursing Assistant, Health Occupations/ Nurse Aid, Allied Hlth.	Hlth Care Mgmt., Hlth Science Career Studies	Medical Terminology of Disease-3
Graphic Communications	Graphic & Multimedia Design	Introduction to Design-3 Digital Photography-3
Practical Nursing	Nursing	² Adaptation Nursing I-6

¹ Proficiency Exam required.

² Challenge Exam option – Applicants who have completed a practical nursing education program may enter the RN program at the 2nd semester by passing the Excelsior College Fundamentals of Nursing exam with a score of “C” or better. The student must also have completed the other courses required during the first semester.

³ Must meet entrance requirements to program and all other articulated criteria.

UNITED STATES PARTNERSHIPS

In addition to articulation agreements, SUNY Canton has partnerships with several U.S. colleges. These partnerships allow stu-

dents to remain at their home college and complete a bachelor's degree with SUNY Canton. The upper division courses in the programs are taught through SUNY Canton OnLine (SUNY Canton OL), through distance learning video technologies, from the partner college's campus faculty, or through a combination of the three methods. Students may be able to complete additional classes beyond their associate degree program at their home institution in order to successfully complete SUNY Canton's bachelor's degree. Students are provided with a recommended plan of study so that they may ensure that the degree can be completed in a timely manner.

For up-to-date information regarding the partnerships with the colleges below or new partnerships, see our website at www.canton.edu.

U.S. PARTNER COLLEGE	SUNY CANTON BACHELOR DEGREE
Fulton-Montgomery Community College, Johnstown, NY	–Management –Finance –CJ: Law Enforcement Leadership
Gillette College, Gillette, Wyoming	–Management –Finance –CJ: Law Enforcement Leadership
Sheridan College, Sheridan, Wyoming	–Management –Finance –CJ: Law Enforcement Leadership

INTERNATIONAL PARTNERSHIPS

SUNY Canton provides students outside the United States with the ability to earn a bachelor's degree from the College through dual-degree programs. The classes are taught using different methods of technology, including SUNY Canton OnLine (SUNY Canton OL) and distance learning video technologies. Students at these institutions earn a bachelor's degree from both their home institution and SUNY Canton.

Additional dual-diploma partnerships are currently under review. Please visit our

website at www.canton.edu/international for updated information.

INTERNATIONAL PARTNER COLLEGE	DUAL-DEGREE PROGRAM
Moscow State Univ., <i>Moscow, Russia</i>	–Management –Finance
American University in Bosnia and Herzegovina <i>Bosnia and Herzegovina</i>	–Finance –Information Technology –Legal Studies
Kazan State Financial and Economics Institute <i>Kazan, Russia</i>	–Finance
Yalta University of Management, <i>Yalta, Ukraine</i>	–Management –Finance
American University in the Emirates <i>Dubai, United Arab Emirates</i>	–Management –Finance

OTHER COLLEGES	ASSOCIATE DEGREE
Osaka College of Foreign Language and International Business, <i>Osaka, Japan</i>	–Veterinary Science Technology

DEGREES OFFERED

The College offers the opportunity for students to earn the degrees of Bachelor of Technology, Bachelor of Business Administration, Bachelor of Science, Associate in Applied Science, Associate in Science, Associate in Arts, or a Certificate of one-year study. While most curricula are available to new students only in the Fall Semester of each academic year, some may commence in either Fall or Spring semesters.

SERVICEMEMBERS OPPORTUNITY COLLEGE

SUNY Canton is a member of the Servicemembers Opportunity Colleges (SOC). The College currently has SOCAD agreements with the Department of Defense for the Automotive, Criminal Investigation and

Health Care Management programs.

Additionally, the college participates in the degree completion agreement program with SOC. Qualified service members and their dependents are guaranteed the ability to complete their SUNY Canton degree at any SOC member institution after they have met residency requirements at the college.

CONCURRENT ADMISSIONS PROGRAM (CON AP)

The Concurrent Admissions Program (CON AP) is conducted by colleges and universities that are members of Servicemembers Opportunity Colleges (SOC). Concurrent with their enlistment in the Army, new soldiers are encouraged to apply for admission to SUNY Canton. Upon meeting satisfactory criteria for full or provisional admission, the soldier will be allowed to defer admission until completion of military service.

After completing a two-, three-, or four-year enlistment, the new veteran will be encouraged to enroll at SUNY Canton. This program also applies to soldiers enlisting in the Army Reserve.

AIR FORCE RESERVE OFFICER TRAINING CORPS (AFROTC)

AEROSPACE STUDIES

Air Force Reserve Officer Training Corps (AFROTC) combines college study with military leadership, discipline, and training to produce officers and leaders for the United States Air Force. Upon graduation with at least a bachelor's degree, students are commissioned as second lieutenants in the Active Duty Air Force. AFROTC Detachment 536 is hosted by Clarkson University and available to SUNY Canton students through cross registration. Enrollment is voluntary and cadets not on scholarship or participating in the Professional Officer

Course incur no military obligation and can withdraw at any time. For more information or to enroll in the program, call 315-268-7989.

CURRICULUM

AFROTC is normally a four-year program divided into two portions, General Military Course (GMC) for freshman and sophomores, and Professional Officer Course (POC) for juniors and seniors. Cadets also complete Leadership Laboratory (LLAB) each semester. Students can enroll as sophomores and will take both GMC classes. Based on Air Force needs, students may be allowed to enroll as late as the start of their junior year with the GMC curriculum covered during an extended Field Training session.

GMC classes are one credit hour each semester; they cover the Air Force mission and organization, customs and courtesies, correspondence, and drill and ceremonies, and trace the history of air power from the Wright Brothers' first flight at Kitty Hawk to recent operations in Afghanistan and Iraq.

POC classes are three credit hours each semester; they cover an in-depth study of leadership and management concepts, and introduce cadets to national security concepts and issues, military law, the law of armed conflict, and preparation for entrance into the Active Duty Air Force.

LLAB is two-hours each week for GMC cadets, three hours each week for POC cadets. LLAB is a hands-on leadership training program. POC cadets plan and execute 13 labs each semester along with other extra-curricular activities like formal dinners and awards ceremonies. Cadets participate in physical training two hours each week as part of the LLAB curriculum.

FIELD TRAINING

After completing the GMC, cadets normally attend Field Training during the summer between the sophomore and junior year. Field Training is an intense four-week

hands-on leadership challenge. Cadets are exposed to a variety of challenges to force them to work as a team, learn to critically evaluate situations, and perform under stress and are evaluated on mastery of military customs and courtesies, drill and ceremonies, and their leadership ability.

SCHOLARSHIPS/FINANCIAL SUPPORT

Multi-year scholarships are available and based on military and academic merit, not on financial need. They vary from \$3,000 to full tuition and include a yearly book stipend. Scholarship cadets or POC cadets without a scholarship receive a Monthly Stipend during the academic year.

OTHER ACTIVITIES

Cadets can receive up to eight hours of no-cost flight instruction through the Civil Air Patrol. Each year, the cadet wing visits an Air Force Base to see first hand how the Air Force works and these trips can include flights on a variety of military aircraft. Cadets also compete for summertime opportunities to earn parachute wings (free-fall and airborne) or to travel to overseas bases at no cost.

ARMY RESERVE OFFICER TRAINING CORPS (AROTC)

MILITARY SCIENCE

The Clarkson University Army Reserve Officers Training Corps (AROTC) is available to SUNY Canton students through cross-registration and teaches military subjects, physical conditioning, and leadership skills. The goal of the department is to develop individual leadership and managerial ability, while preparing young adults to become leaders in the U.S. Army. An active extracurricular program provides many opportunities to participate in helicopter rappelling, cross-country and downhill ski-

ing, and various field leadership exercises. Qualified students have an opportunity to attend the Army Airborne School, Air Assault School, or the Northern Warfare Training Course. AROTC allows students maximum flexibility to include ROTC in their various course of study. Enrollment is voluntary.

BASIC COURSE

(Freshman and Sophomore Years)

The Basic Course provides students with sufficient military background to make informed decisions about participation in the AROTC Advanced Course and pursuit of a military commission. Non-scholarship students in the Basic Course incur no military obligation and can withdraw at any time.

VETERANS

The ROTC course is normally a prerequisite for the Advanced Course; however, prior service personnel or members of the Reserve Forces who have completed basic training may enroll in the Advanced Course as juniors as long as they have achieved junior status.

ADVANCED COURSE

(Junior and Senior Years)

The Advanced Course places increased emphasis on tactical, technical, and leadership skills to prepare students for positions of responsibility at a six-week Advance Training Camp. It is normally held the summer between the junior and senior years, and cadets are paid at the rate of one-half a second lieutenant's pay. The final year is spent on topics in military officership and gives the students the opportunity to hold corps leadership positions.

SCHOLARSHIPS

The U.S. Army ROTC program has two-year and three-year scholarships available to qualified students. They are awarded based on merit and academic potential, not on need. Students can compete for three-year scholarships during their freshman year and two-year scholarships during their sophomore year or a Basic Camp.

For more information, contact the Professor of Military Science at (315) 268-7705/7708.

STUDENT RIGHT-TO-KNOW

On July 1, 1992, the Student Right-to-Know and Campus Security Act went into effect requiring institutions receiving federal student aid funds to make available to prospective students graduation, retention, and attrition rates beginning in July 1993. Successful outcomes of students' academic performance are measured by graduates, transfers, persisters, and those receiving a certificate.

Of the 527 associate-level students who entered SUNY Canton in the Fall of 2006, 151 (28.65%) graduated within three years; 89 (16.89%) graduated within two years; 2 (.38%) received a certificate; 140 (26.57%) transferred to another institution without a degree; and 29 (5.5%) were still enrolled in the Fall of 2009.

In summary, 322 of the 527 students (61.1%) who enrolled at SUNY Canton in the Fall of 2006 achieved a successful outcome. If you have any questions about this report, please contact the Office of Admissions at (315) 386-7123.

BASIC CAMP

Other interested students may qualify for advanced ROTC by attending a six-week Basic Camp. At Basic Camp, students earn over \$750, plus room and board. Students applying through this route normally attend Basic Camp between the sophomore and junior years. This program is available to students who have at least two academic years remaining in their degree program.

Disclosure of Completion, Persistence, and Transfer Rates for Full-Time, First-Time Associate Level Students Entering in Fall 2006, Pursuant to Terms of the Student Right-to-Know Act Institution: Canton <i>(Status as of the Fall 2009 Semester)</i>											
SEX	RACE	INITIAL COHORT ENTERING FALL 2005 (1)	ENTERING INST.		TRANSFERS TO A SUNY (WITHOUT A DEGREE)		TRANSFERS TO A NON-SUNY (WITHOUT A DEGREE)		NUMBER PERSISTERS ENROLLED FALL 2008 (8)	ATTRITION (9)	RECEIVED CERTIFICATE OR DIPLOMA ONLY (10)
			GRADS WITHIN TWO YEARS (2)	GRADS WITHIN THREE YRS. (3)	FOUR YEAR INST. (4)	TWO YEAR INST. (5)	FOUR YEAR INST. (6)	TWO YEAR INST. (7)			
Female	Wht	214	40	70	8	35	2	3	14	82	0
	Blk	13	1	8	0	0	1	1	2	1	0
	Hsp	11	0	2	0	0	1	3	1	4	0
	Aia	3	0	0	0	1	0	0	0	2	0
	Subtotal	241	41	80	8	36	4	7	17	89	0
Male	Wht	233	46	63	15	41	4	2	11	95	2
	Blk	29	2	6	2	5	2	5	1	8	0
	Hsp	15	0	1	0	3	0	4	0	7	0
	Api	4	0	1	1	0	0	0	0	2	0
	Aia	2	0	0	0	0	0	0	0	2	0
	Nra	3	0	0	0	1	0	0	0	2	0
	Subtotal	286	48	71	18	50	6	11	12	116	2
Total		527	89	151	26	86	10	18	29	205	2

Tuition and Fees

The following are estimated costs of attending SUNY Canton for 2010-11. All costs are subject to change without notice.

	1st SEMESTER	2nd SEMESTER	TOTAL
TUITION			
NYS Resident	\$2,485.00	\$2,485.00	\$4,970.00
Out-of-State Resident (Bachelor)	6,435.00	6,435.00	12,870.00
Out-of-State Resident (Associate)	4,375.00	4,375.00	8,750.00
COMPREHENSIVE STUDENT FEE*			
First Time Students.....	703.50	623.50	1327.00
Continuing Students.....	623.50	623.50	1247.00
ADDITIONAL FEES			
Transcript Fee (<i>billed each semester</i>)	5.00	5.00	10.00
Graduation Fee (<i>seniors only and optional</i>)	—	10.00	10.00
Parking & Vehicle Registration Fee	95.95	95.95	191.90
<i>(includes NYS sales tax)</i>			
Accident & Sickness Insurance	284.00	284.00	568.00
International Health Insurance	454.00	635.75	1089.75
<i>(foreign students only)</i>			
MEALS**	1995.00	1995.00	3,990.00
Commuter Meal Plan –100 meals.....	895.00	895.00	1,790.00
Commuter Meal Plan – 75 meals.....	695.00	695.00	1,390.00
Commuter Meal Plan – 50 meals.....	475.00	475.00	950.00
HOUSING			
Residence Halls			
Double Room (standard)	2,900.00	2,900.00	5,800.00
Triple Room.....	2,500.00	2,500.00	5,000.00
Suite (double)	3,300.00	3,300.00	6,600.00
Suite (single).....	4,950.00	4,950.00	9,900.00
Single Room	4,350.00	4,350.00	8,700.00
Laundry Fee	45.00	45.00	90.00

* See description below. ** Resident students are required to purchase the Meal Plan.

FEES

COMPREHENSIVE STUDENT FEE

The comprehensive Student Fee is

charged to all degree students and consists of the following fees:

College Fee - (mandatory) Fee required by all State-operated campuses.

Athletic Fee – (mandatory) Supports all athletic programs.

Health Fee – (mandatory) Supports the campus health Center. Students can use the health center for minor illness/injuries with no additional charge.

Technology Fee – (mandatory) Supports the campus technology infrastructure and continued improvement of computer systems, classroom technology, wireless connections and technical help.

Student Activity Fee – (mandatory) supports a wide range of activities that take place on campus for educational and entertainment purposes.

Transcript Fee – (mandatory) Covers cost of all transcript requests for the student now and in the future.

Alumni Fee - (optional) Supports the College Alumni Association. Alumni services include: scholarships, gatherings, alumni weekend, and the alumni newsletter. (instructions for waiver of fee on college billing instructions).

Fitness Fee – (optional) Provides unlimited use of the campus fitness center. (Instructions for waiver of fee on college billing instructions.)

LATE REGISTRATION FEE

Should a student fail to register by the appropriate deadline, a \$40 late registration fee will be assessed.

LATE PAYMENT FEE

Should a student fail to process a bill by the appropriate deadline, a \$40 late payment fee will also be assessed. This includes those checks used as payment of fees on or before a registration but returned by the bank as unpaid after registration day. A \$20 charge will be assessed for each check used for payment of fees which has been returned from a bank as unpaid.

BILL PAYMENT

Your student bill is required to be paid by the bill due date which is printed on the semester bill. Bills received after these dates will be subject to a \$80 late payment/registration fee. If you wish to request a special deferment for payment, you should make arrangements with the Student Service Center **BEFORE** the bill due date. All deferments must be paid in full by the end of the semester for which it was made. Students not meeting the terms of their deferment may be subject to penalty during the semester. Penalties include, holds on accounts for transcripts, holds on meal plans and Roo Express credit, and possible suspension.

DROP/ADD FEE

A fee of \$20 will be assessed for each Drop/Add Form processed beginning the second week of classes. Exceptions to this fee are noted in the *Student Handbook*.

IDENTIFICATION CARD REPLACEMENT CHARGE

An original identification card is provided at no charge. A \$10 charge will be assessed to replace the card.

ACCIDENT & SICKNESS INSURANCE

Medical insurance coverage is mandatory for full time students not covered by other insurance but **OPTIONAL** for part-time students. If your enrollment status changes from full-time to part-time (for any reason), you are not charged automatically for domestic health insurance. As a part-time student, you must request coverage, in writing, at the Student Service Center. All full-time students are charged for health insurance unless a completed waiver is submitted to the Student Service Center before the end of the first week of school. Waivers must be completed each semester as part of the tuition billing process.

TUITION/FEE REDUCTIONS DUE TO WITHDRAWAL

TUITION

Reduce as follows:

<i>Cancellation During</i>	<i>Reduction</i>
First week	100%
Second week	70%
Third week	50%
Fourth week	30%
Fifth week	0%

The first day of class session shall be considered the first day of the semester. Seven calendar days later will be deemed the end of the first week for reduction purposes. For students taking only off-campus courses with a later starting date, the refund period shall start with the first scheduled day of class.

SUNY COLLEGE FEE, ORIENTATION FEE, INTERNATIONAL HEALTH INSURANCE, ALUMNI FEE, PLACEMENT FEE, and VEHICLE REGISTRATION FEE

Non-refundable.

SCA ACTIVITY, PARKING, INTER- COLLEGIATE ATHLETIC, STUDENT HEALTH, RECREATIONAL FACILITIES, AND EDUCATIONAL TECHNOLOGY FEES

Reduced on the same percentage as tuition.

ACCIDENT AND SICKNESS INSURANCE

Except for medical withdrawal due to a covered injury or sickness, any student withdrawing from school during the first 31 days of the period for which coverage is purchased shall not be covered under the policy and a full refund of the premium will be made. After such 31 days, all students will remain covered under the policy for the full period for which premium has been paid, and no refund will be allowed.

Insured persons entering the Armed

Forces of any country will not be covered under the policy as of the date of such entry. A pro-rata refund of premium will be made for such person upon written request received by the company within 90 days of withdrawal from school.

MEAL TICKET REFUND

Refunds will only be allowed for withdrawal from school or academic dismissal. Refunds due to the removal of a student from the residence hall for either academic or disciplinary reasons is at the discretion of College Association management.

The refund will be based on the point value of the meal plan less a 15% (fifteen percent) fee for processing and administration charges when the refund is approved and the check is drawn. The refund will be based on the official date of withdrawal or dismissal as recorded by the Student Service Center.

Students who advance register, but who do not subsequently attend the College, will receive a full refund of their entire dining meal plan payment. Transfers of funds from one student's account to that of another student are not permitted.

HOUSING: RESIDENCE HALL

Upon official withdrawal from the College, residence hall reduction are on a percentage basis as follows:

<i>Cancellation During</i>	<i>Reduction</i>
First week	100%
Second week	70%
Third week	50%
Fourth week	30%
Fifth week	0%

Residence hall opening day shall be considered the first day of the semester. Seven calendar days later will be deemed the end of the first week for refund purposes.

LAUNDRY FEE

Non-refundable.

TITLE IV REFUND POLICY

Under Federal Financial Aid rules, the college recalculates Federal* financial aid eligibility for students who withdraw, drop out, are dismissed or take a leave of absence prior to completing 60% of a semester. Recalculation is based on the percent of earned aid using the following formula:

Percent earned = Number of days completed up to the withdrawal date**/total days in the semester (including weekends and breaks under five days).

Federal financial aid is returned to the federal government based on the percent of unearned aid using the following formula:

Aid to be returned = $(100\% - \text{percent}$

earned) X the amount of aid disbursed toward institutional charges.

When aid is returned, the student may still owe a balance to the College. The student should contact the Student Service Center to make arrangements to pay the balance.

** Federal financial aid includes Federal Pell Grant, SEOG Grant, Perkins Loan, Direct Student Loan—subsidized and unsubsidized, Direct PLUS Loan, and ACG SMART Grants.*

***Withdrawal Date is defined as the date the student indicated their intent to withdraw or the midpoint of the semester for a student who leaves without notifying the College.*

TIME PAYMENT PLAN

To set up monthly payments, SUNY Canton recommends the TuitionPay Plan from Academic Management Services (AMS). This plan allows you to pay the balance of your bill over a ten-month period for an academic year or five months for a semester. There is no interest just an enrollment fee of \$35/semester. Please direct questions regarding TuitionPay to: (800) 635-0120 or sign up directly at www.tuitionpayenroll.com or use the links on our billing screens at the UCanWeb account.



Financial Assistance

SUNY Canton offers a comprehensive program of financial assistance to help students and their families meet the costs of a quality college education. Approximately 85 percent of degree students attending SUNY Canton receive some form of financial assistance.

The following information is provided as a general reference to financial aid at SUNY Canton and is based on statutes, regulations and policies current at the time this Academic Catalog was prepared for publication. These descriptions are, however, subject to change. Thus, it is recommended that candidates for admission and current students contact the Student Service Center, SUNY Canton, 34 Cornell Dr., Canton, New York 13617, telephone (315) 386-7616 or toll free at (800) 388-7123 or email at finaid@canton.edu.

STUDENT SERVICE CENTER

The Student Service Center at SUNY Canton exists to provide personal assistance to students and parents on a one-to-one basis from the time of initial inquiry until the completion of a student's program of study. Every effort is made to insure that qualified and deserving students are not denied the benefits of a SUNY Canton education on the sole basis of financial need. Financial aid at SUNY Canton is awarded based on financial need and merit, without regard to sex, race, age, color, creed, national origin, disability or handicap.

STUDENT/PARENT RESPONSIBILITY

The federal financial aid system is based on the belief that it is first the family's responsibility to contribute to the costs of the student's college education, to the extent that the family is financially able. Determining what the family can contribute is accomplished by having the student complete the Free Application for Federal Student Aid (FAFSA) which assesses the

family income and assets.

If the determination is made that the family resources are not sufficient to meet the total cost of education, SUNY Canton may help meet the student's need through some combination of its own aid funds and those funds available from other public or private sources. If it is determined that the family's resources are sufficient to meet the yearly college costs, or additional help is needed, the student, although ineligible for regular forms of aid, may qualify for some non-need-based assistance. Non-need-based aid and alternative methods of meeting college costs will be discussed later in this section.

INDEPENDENT/DEPENDENT STATUS DETERMINATION

The criteria that is used to determine whether a student is considered dependent or independent differs for federal and state aid. If a student meets the federal independence criteria, then federal aid eligibility is based on the student's (and spouse's, if married) prior tax year income. If a student does not meet the federal independence criteria, then his/her federal aid eligibility is based on the student's and the parent's prior tax year income. Other factors, such as assets, family size and number of family members in college figure into the federal aid eligibility.

SUNY Canton adheres very closely to the federally-established independence criteria. We do recognize, however, that there are special cases in which students may not meet the federal independence criteria but may have extenuating circumstances. These students should contact the Student Service Center, prior to completing the aid application.

Independence criteria for state aid is established in NYS law. The New York Higher Education Services Corporation (NYHESC) in Albany is the agency re-

sponsible for determining the student's dependency status for state aid.

Students over the age of 35 are considered independent for state aid. For students under the age of 35, the state criteria considers whether the student lived/lives with the parent(s), whether the student has been claimed as a tax exemption by the parent(s), and whether or not the student has/will receive financial support from the parent(s) in recent years.

Questions regarding dependency status for federal and/or state aid should be directed to the Student Service Center. Students should be ready to document the information they provide on the aid application concerning their dependency status.

TYPES AND SOURCES OF AID

There are three major types of financial aid: 1) Grants and scholarships, also known as gift aid because this type of aid, in almost all cases, does not have to be repaid; 2) loans, which must be repaid but typically not until the student has left school or dropped below half-time status; and 3) part-time employment, through which the student earns a wage by working on-campus.

There are a four major sources of aid: 1) the federal government provides the largest source of funding; 2) the State, most states, including New York, sponsor state grant programs for their residents; and 3) the College itself may be a source of aid, or with scholarship or loan funds that the College has raised. 4) private sources- there are several scholarship and loan programs available to assist students. Refer to the financial aid page of www.canton.edu for more information.

APPLYING FOR FINANCIAL AID

Students applying for financial aid at

SUNY Canton should be aware of the following application process:

- Each student must complete the following, as soon after January 1 in the year in which they are seeking aid: 1) the Free Application for Federal Student Aid (FAFSA), and 2) the New York State TAP Grant application. Both applications may be completed online at **www.fafsa.ed.gov**. For an electronic signature you and your parents should get a PIN a **www.pin.ed.gov** a few days prior to completing the FAFSA online.
- Out-of-state students should check with their state's higher education agency to determine if they need to complete a separate application to be considered for a grant from their home state.
- Students should be ready to submit signed copies of their and their parents' prior year income tax forms, if requested by the College's Student Service Center. Aid eligibility is based on the prior tax year's income. Therefore, if applying for aid for the 2010-2011 year, a family may be asked for signed copies of the 2009 income tax forms.
- Students should research the availability of private scholarships. Visiting a high school guidance office, local library, or the Internet can provide free access to information concerning private scholarships.
- SUNY Canton funds a number of scholarships for freshmen and returning students. Freshmen who meet basic requirements will have an application sent to them to complete. All admitted students with a scholarship application will be considered for scholarship funding and contacted by the Office of Admissions or Development Office if awarded a scholarship. Recipients are typically chosen in the summer prior to the academic year. A listing of current College Foundation Scholarships is available at the end of this section. Questions concerning College Foundation Scholarships should be directed to the Development Office at

(315) 386-7127.

- Any outside financial aid awards that a student receives must be included in the award package. If aid adjustments are necessary loans will be reduced before grand aid or work.

DEADLINES

Application deadlines vary from program to program. Since funding from the federal government is limited for the campus-based aid programs (Federal Perkins Loan, Federal Work-Study, and Federal SEOG), these funds are awarded on a first-come, first-served basis, until funds are exhausted. To be considered for these funds, students should submit a FAFSA online at www.fafsa.ed.gov by March 15. It 1-3 weeks for the processing agency to process the student's application and forward it to the Student Service Center. ** We strongly encourage all students to complete and submit their FAFSA before March 15 of each award year..*

BASIC ELIGIBILITY REQUIREMENTS

All students applying for federal financial aid must meet the following basic requirements:

1. You must be a U.S. citizen or eligible non-citizen (have an alien registration number).
2. You must have a high school diploma or its equivalent (ex., GED)*. Home-schooled students must have officially completed their program.

**Adult students with no GED or diploma may be eligible to receive financial aid by taking the placement exam and scoring at least one standard deviation below the mean or higher. See the Office of Admissions for details.*

3. You must be enrolled as a regular student in an eligible degree program.
4. You must not be in default of any previous student loans.

5. You must maintain satisfactory academic progress in your degree program.
6. All male students must register with Selective Service or be exempt from doing so.
7. You must not have been convicted of possession or sale of illegal drugs for an offense that occurred while you were receiving federal financial aid. More information regarding this requirement is available at the Financial Aid page of www.canton.edu.

NOTIFICATION OF ELIGIBILITY

Applications are reviewed by a financial aid advisor. In some cases, the Student Service Center will request additional information from the student and family (for example, we may request copies of income tax returns or other income verification). The student should respond immediately to any requests for information that he/she receives. Once the Student Service Center has received all necessary forms and documents from the student, the student's file is considered complete and ready for notification of aid eligibility.

Students are notified of their financial aid package availability by email and letter.. Awards may be accepted or declined online on their student UCanWeb account. Please read instructions and Terms & Conditions carefully.

The Student Service Center begins notifying students of aid eligibility in early March. The process continues as applications are received.

SPECIAL CIRCUMSTANCES

If you feel that you have a special circumstance that needs to be taken into consideration for financial aid eligibility, we may be able to recalculate your eligibility within federal guidelines. You may download and complete a **Special Conditions Form** at www.canton.edu. Click on Financial Aid, then on Forms and Worksheets. If your spe-

cial circumstance involves your dependency status for the FAFSA, you may also find the Request for Independence Consideration in the same area.

AVAILABLE FEDERAL PROGRAMS

Students are automatically applying for these aid programs when they complete the Free Application for Federal Student Aid (FAFSA).

FEDERAL PELL GRANTS

The Pell Grant Program is an entitlement program. It is also a grant program, i.e., no repayment is required. Eligibility and award amount are based on need and determined by the U.S. Department of Education. The Pell Grant may be used for tuition, fees, books, and living expenses. As of 7/1/08 first time Pell recipients have a lifetime eligibility limit of 18 full-time semesters. As of 7/1/09 Pell is available to eligible students year round (including summer). Also, as of 7/1/09 any student who whose parent/legal guardian died in Iraq or Afghanistan will be entitled to the full Pell award.

Currently, awards for eligible students can be as much as \$555.00. The amount of the award will be affected by costs of attendance and full- or part-time enrollment status. The Pell Grant does not duplicate the State awards.

Pell recipients must continue to make satisfactory academic progress in the program in which they are enrolled. Students who possess a bachelor's degree are ineligible for a Pell Grant.

Students must file the FAFSA to determine Pell Grant eligibility.

FEDERAL SUPPLEMENTAL EDUCATIONAL OPPORTUNITY GRANTS (FSEOG)

The applicant must have financial need and be eligible for a Pell Grant. FSEOG, like PELL, is a grant program, i.e., no re-

payment is required. Students who possess a bachelor's degree are ineligible for FSEOG.

Currently, typical annual FSEOG awards range from \$200 to \$1,500 depending on funding. Recipients must continue to make satisfactory academic progress in the program in which they are enrolled.

ACADEMIC COMPETITIVENESS GRANT (ACC) & SMART GRANT PROGRAMS

This new federal grant program may provide additional assistance to students who meet the following basic requirements:

- U.S. Citizen or eligible non-citizen
- Pell Grant recipient
- Enrolled at least half time

ACG - This grant is specifically for 1st and 2nd year students in an associate degree or bachelor's degree program. Students must have completed a "rigorous secondary academic program" which will be determined by the Office of Admissions. Awards are up to \$750 for first-year and up to \$1,300 for second-year students. Students must maintain a 3.0 GPA to receive the second year of the award.

SMART Grant - This grant is specifically for students in the 3rd and 4th years of a bachelor's degree program in physical or life sciences, computer science, engineering, mathematics, technology, or a critical foreign language. Currently our Information Technology program meets this definition. Students may be awarded up to \$4,000 each year and must maintain a 3.0 cumulative GPA each semester.

FEDERAL PERKINS STUDENT LOAN

Loans are offered to high-need students who are enrolled on at least a half-time basis. This is a limited fund which is awarded on a first-come, first-served basis.

The maximum amount which can be borrowed on an annual level is currently at \$2,000 for most SUNY Canton students. An undergraduate student cannot borrow

more than \$9,000 total. Loans are repaid beginning nine months from the time the student ceases to be enrolled at least on a half-time basis. Students borrow at a 5% fixed interest rate and have up to ten years to repay. Payment may be deferred for up to three years or forgiven for certain categories of borrowers. Certain jobs in law enforcement and education may qualify borrowers for partial or full cancellation of the loan debt.

All Perkins Loan recipients are required to complete an electronic promissory note before the loan can be disbursed. An exit interview is required before leaving the College so that their rights and responsibilities concerning their loan may be explained to them. Specific information may be obtained from the Student Service Center.

FEDERAL WORK-STUDY PROGRAM

Through the FWS Program, the College makes employment reasonably available to eligible students who have demonstrated that they are in need of financial assistance. In the event that more students are eligible for FWS than there are funds available, preference is given to students on a first-come, first-served basis. At least 7% of funds must be used for community service jobs both on and off campus.

The starting salary is usually set at minimum wage. Currently, a typical annual award is worth \$1,500 which means that the student would work approximately seven hours per week to earn his/her full award.

FWS recipients must continue to make satisfactory academic progress in the program in which they are enrolled.

FEDERAL DIRECT STAFFORD STUDENT LOAN (SUBSIDIZED)

This is a program that allows students to borrow funds from the federal government. The first step in applying for a Stafford Loan is to complete the Free Application for Federal Student Aid (FAFSA) since students applying for a Stafford Loan need proof that they have first applied for the federal PELL

Grant. The College will notify the student of his/her eligibility for a Stafford Loan on the award notice. *(Please note that not all students are eligible for a Subsidized Stafford Loan; the College's Student Service Center determines loan eligibility.)*

To be eligible, a student must be a U.S. citizen or eligible non-citizen and be enrolled or admitted on at least a half-time basis. Once again, the student must demonstrate need for the loan as evidenced on a processed FAFSA.

A SUNY Canton student may be eligible to borrow no more than \$3,500 as a freshman and no more than \$4,500 at the sophomore level. Once full junior status is achieved in a bachelor's program you may borrow up to \$5,500/year. The interest rate is currently fixed at 4.5% as of 7/1/10. Principal and interest are deferred during the time that the student is enrolled on at least a half-time basis. Borrowers have up to ten years to repay and repayment begins six months after the student ceases to be enrolled on at least a half-time basis. Payment of the principal may be deferred for up to three years for certain categories of Public Health Service officers, the temporarily disabled, those in internships required before entering a profession, and Peace Corps or Vista volunteers.

All Federal Stafford Loan recipients are required to attend an entrance interview and complete an electronic promissory note before receiving the first Stafford Loan disbursement. Both can be done online from the financial aid page of our website. Before leaving the College, all Stafford Loan recipients are required to attend an exit interview. The purpose of these interviews is to inform the student of his/her rights and responsibilities concerning the loan, to be sure that the student is aware of what borrowing entails, to be sure that the student understands the consequences of not repaying the loan, and to be sure that the student is clear on the repayment terms of the loan and who the loan will be repaid to, as well as the amount of loan borrowed. Questions

concerning loan entrance, exit interviews, or promissory notes should be directed to the Student Service Center.

FEDERAL NON-NEED BASED LOAN PROGRAMS

FEDERAL DIRECT STAFFORD STUDENT LOAN (UNSUBSIDIZED)

Most terms and conditions of the unsubsidized loan are the same as for the subsidized loan except that interest is a fixed 6.8% and accrues while the student is in school. Loan limits for dependent students cover the cost of attendance minus any aid received, up to the limits of the subsidized Stafford Loan (that is, a dependent freshman cannot borrow more than \$3,500 in a combination of subsidized and unsubsidized, while a dependent sophomore cannot borrow more than \$4,500, and a dependent junior/senior cannot borrow \$5,500). An independent freshman cannot borrow more than \$7,500 between the subsidized and unsubsidized Stafford Loans. An independent sophomore cannot borrow more than \$8,500 between the subsidized and unsubsidized Stafford Loans. Independent juniors and seniors in the BT program can borrow up to \$10,500 between subsidized and unsubsidized loans. As of 7/1/08, all students are eligible for an additional \$2,000 in unsubsidized Stafford Loan. The total of the student's unsubsidized loan, and the other aid/resources that the student will be receiving, can never exceed the total cost of attendance. Accrued interest may be paid or added to the loan (capitalized) as agreed by the borrower and the federal government. The first step in being considered for an unsubsidized loan is to complete the Free Application for Federal Student Aid (FAFSA).

FEDERAL DIRECT PARENT LOAN FOR UNDERGRADUATE STUDENTS (DPLUS)

This is a program that allows parents to borrow funds from the federal govern-

ment. Under DPLUS, the parent is the borrower and if eligible, (these loans are subject to a credit check) may borrow up to the difference between the yearly cost of attendance and the student's other yearly financial aid.

Interest on the principal is fixed at 7.9% beginning July 1, 2006. Repayment of a DPLUS Loan begins 60 days following receipt of the loan's second disbursement. Parents may request a deferment of payments until the student is out of school.

It is also important to note that the parent and student must be U.S. citizens or eligible non-citizens, and neither can be in default on a prior student loan or owe a refund on a federal grant in order to be considered for a DPLUS loan. In addition, the student must be: 1) accepted or enrolled in an eligible program leading to a degree or certificate; 2) be enrolled on at least a half-time basis; 3) maintain satisfactory academic progress if currently enrolled; and 4) show compliance with applicable Selective Service requirements. The promissory note for the DPLUS can also be done online through the financial aid page of our website.

FEDERAL AID TO NATIVE AMERICANS (BIA GRANT)

To be eligible for consideration a student must: 1) possess one-fourth or more degree Indian blood and be certified by their Tribe, 2) be a member of a Tribe, 3) be enrolled (or accepted for enrollment) on a full-time basis in a program which will lead to a four-year degree, and 4) have a definite financial need after all other sources of financial assistance have been applied.

Application forms may be obtained from a liaison office of the U.S. Bureau of Indian Affairs. The application deadline is July 15 for the Fall Semester/academic year and October 15 for students beginning their studies in the Spring Semester. Please note that students should first complete the Free Application for Federal Student Aid (FAFSA). Students must reapply for

federal Native American aid each year and must meet certain academic standards to continue to receive the grant.

AVAILABLE STATE PROGRAMS

TUITION ASSISTANCE PROGRAM GRANT (TAP GRANT)

To apply, follow the procedure detailed in "Applying for Financial Aid."

The TAP Program is an entitlement program, and no repayment is required as it is a grant. To be eligible for consideration, the student must be: 1) a New York State resident (as defined by the New York Higher Education Services Corporation's residency policy) and a U.S. citizen or eligible non-citizen, 2) be enrolled on a full-time basis (at least 12 credit hours per semester). 3) certain students may be eligible if enrolled part-time. Eligibility for TAP is based on the family's prior year New York State taxable income figure and also considers how many family members, other than the applicant, will be enrolled in college on a full-time basis.

TAP awards at SUNY Canton for the 2008-2009 year ranged from \$500 to \$4,995 per year, for students who qualified. Students can receive a TAP award for no more than six full-time semesters of undergraduate study at the associate degree level or eight semesters at the bachelor's degree level. EOP students may have additional eligibility. Recipients must be in good academic standing in the program in which they are enrolled.

OTHER AWARDS/SCHOLARSHIPS SPONSORED BY NEW YORK HIGHER EDUCATION SERVICES

The New York Higher Education Services Corporation sponsors the following awards for special populations:

- Veteran Tuition Awards (VET)
- Child of Veteran Awards (CV)
- Child of Deceased Police Officer/ Fire-

fighter/Correction Officer Awards

- NYS Volunteer Recruitment Service Scholarship
- Memorial Scholarships for Children of Deceased Police Officers and Firefighters

In addition to completing the FAFSA, students who wish to be considered for any of the above awards must also complete the New York State TAP Grant Application. Typically, if a TAP award is received in addition to any of the above awards, the combined award can be no greater than the cost of tuition. Recipients must be in good academic standing in the program in which they are enrolled.

For more specific information concerning the above state awards, contact the Student Service Center or the New York Higher Education Services Corporation, 99 Washington Avenue, Albany, NY 12255.

NEW YORK STATE AID TO NATIVE AMERICANS

Application forms may be obtained from the Native American Education Unit, New York State Education Department, Albany, NY 12230. The completed application should be forwarded to the Native American Education Unit, along with the supporting documentation required. This is an entitlement program, with neither a qualifying examination nor a limited number of awards, and repayment is not required. There are application deadline dates.

The award is \$2,000 per year for a maximum of four years of full-time undergraduate study (five years where a fifth year is required for completion of degree requirements). Awards are not provided for study in remedial programs.

Students are responsible for notifying the Native American Education Unit in writing of any change in student status. Students must also submit semester grades, at the end of each semester, showing satisfactory progress toward completion of degree requirements.

EDUCATIONAL OPPORTUNITY PROGRAM (EOP)

This program operates in the State University of New York and is designed to provide access to post-secondary education to educationally- and economically-disadvantaged students. It is a comprehensive program in which financial assistance is one possible component along with special counseling, tutoring, and remedial course work.

Application is automatic via the SUNY Application for Admission. An applicant must be:

- A New York State resident;
- Academically disadvantaged according to definitions promulgated by SUNY;
- Economically disadvantaged according to guidelines approved by the Board of Regents and the Director of the Budget. Students who apply for the EOP Program will be required to provide documentation of total family income to ensure that they meet prescribed income guidelines.

The amount of financial assistance and other support provided to EOP students is dependent on need as determined by SUNY Canton, using NYS regulations and budget approval.

EMPIRE STATE DIVERSITY HONORS SCHOLARSHIP PROGRAM

The SUNY Canton/Empire State Diversity Honors Scholarship program provides assistance to students who have demonstrated high academic achievement and have overcome a disadvantage or other impediment to succeed in higher education. Individuals selected to receive these scholarships must:

- Be residents of New York State;
- Have been accepted for enrollment or be enrolled in a degree program.

Selection from each year's eligible applicants is made by the College Scholarship Committee in accordance with the follow-



ing criteria:

- Financial need;
- If accepted for admission to the College, the prospective eligible student must have earned at least an 80% average for the first three and one-half years of high school;
- If enrolled at the College, each recipient must have at least a 2.75 cumulative grade point average;
- While it is the intent that the recipient will continue to receive such support while enrolled, support will be withdrawn if the students cumulative grade point average is lower than 2.50.

Further information concerning this program is available from the Student Service Center or the Development Office.

AID FOR PART-TIME STUDY (APTS)

This program provides tuition assistance for part-time undergraduates enrolled in degree or certificate programs in New York State. To be eligible for consideration, a

student must: 1) be registered for at least 3 but less than 12 semester hours; 2) be working toward an undergraduate degree or be enrolled in a registered certificate or approved degree program; 3) be in good academic standing; 4) be a New York State resident and a U.S. citizen or eligible non-citizen; 5) have tuition charges of at least \$100 per year.

Eligibility is based on the family's prior year New York Taxable Income figure. Dependency status for the APTS program considers whether the student was eligible to be claimed as a tax exemption by his/her parents in the prior tax year.

The amount of APTS awards range from \$75 to \$400 or more per semester depending on the College's yearly allocation from the State. An award amount cannot exceed the tuition charges.

Specific questions concerning the APTS award may be directed to the Student Service Center. Funding for this program is very limited so students are encouraged to apply early. Application can be found in the Part-Time Students link on the Financial Aid page of www.canton.edu.

CANTON COLLEGE FOUNDATION SCHOLARSHIPS AT SUNY CANTON

Most of the financial assistance available at SUNY Canton is awarded on the basis of an individual student's financial need as determined by universally applied formulas. However, there are an increasing number of awards through the Canton College Foundation which recognize special characteristics and accomplishments of our students and incoming freshmen. **Some**, once awarded, are renewable if the student's special characteristics and academic performance merit, as specified in the endowment. Available scholarships and their award criteria are listed herein.

Alumni Association Scholarship

- Returning senior student
- Minimum 3.0 GPA
- Service to college community
- Financial need

Alumni Legacy Scholarship

- Entering freshman student
- Child or grandchild of alumnus
- Academic potential, as demonstrated by high school performance
- Financial need

Anderson-André Endowed Scholarship

- Entering freshman student
- Liberal Arts and Sciences: Chemistry option or Veterinary Science Technology curriculum
- St. Lawrence, Jefferson, or Lewis County resident
- Preference to graduates of Beaver River or Canton Central School

Timothy M. and Mary Lou Ashley Family Endowed Scholarship

- Students in one of the following areas: Criminal Justice, Business Administration, or Liberal Arts
- To provide assistance to worthy individuals who appreciate the value of a quality education

Augsbury Agricultural Scholarship

- Entering freshman student
- Forest Technology or Veterinary Science Technology curriculum
- St. Lawrence County resident
- Non-traditional student
- Financial need

Financial Assistance

Alice Westaway Bagley Endowed Scholarship

- Nursing and allied health
- St. Lawrence County resident

Rachael M. and Leon E. Bagley Endowed Scholarship

- Freshman to be retained
- Preference to, but not restricted to, students from Madrid-Waddington or Edwards-Knox Central Schools

Baldwinsville High School Class of 1957 Scholarship

- Entering freshman from C.W. Baker High School, Baldwinsville, New York
- Air Conditioning Engineering Technology curriculum.
- Other curriculums, if only one eligible Air Conditioning Engineering Technology student enrolls
- Students may retain scholarship

Dr. Adelord S. and Sylvia H. Blanchard Endowed Scholarship

- Returning senior student
- Business Administration curriculum
- Preference to candidates intending to pursue a baccalaureate degree in business

Leland Blevins Family Scholarship

- Entering freshman student
- Automotive Technology curriculum
- Demonstrates potential for success

Bridge to Success Scholarship

- Established by R. Peter Heffering '51
- Assist students who have exhausted all their options for scholarships, loans, and other funds
- No curriculum restrictions

Goldie Burgess Endowed Scholarship

- Returning senior student
- Nursing curriculum
- Minimum 2.75 GPA
- Financial need

Agnes & John N. Burns Family Endowed Scholarship

- Entering freshman student
- Business and one is open curriculum
- Preference to students from Franklin, Jefferson, Lewis, or St. Lawrence County

Paul W. Calkins Endowed Scholarship

- Entering freshman student
- High school record exemplary
- Business curriculum
- Financial need

Canton Area Zonta Club Scholarship

- Returning senior student

- Resident of Town of Canton or, secondly, St. Lawrence County
- Single parent with potential for success
- Financial need

Canton College Foundation Merit Scholarship

- Returning senior student
- Non-traditional
- Engineering Science with a 3.0 GPA

Preston C. Carlisle Annual Scholarship

- Student from St. Lawrence County

The Centennial Endowed Scholarship

- No restrictions on year or curriculum
- Financial need may be considered.

Alden C. Chadwick Endowed

Scholarship

- Returning senior student
- “Scholar athlete” with demonstrated academic excellence, while an active participant in an intercollegiate athletic program

Varick A. Chittenden Book Scholarship

- Second-year student
- Exceptional North Country student

Clark-Guyette Internship Assistance Program Endowment

- Students participating in non-subsidized internship
- Preference given to St. Lawrence County students
- Interest-free loan paid back within a five-year period

Ed and Clara Cloce Endowed

Scholarship

- Either freshman or senior
- Demonstrates potential for success
- Preference to Automotive curriculum or curriculum in the Canino School of Engineering Technology
- Financial need

College Association Endowed

Assistantships

- Work awards given by the Financial Aid Office to students who have financial need and cannot get aid from other sources

Dr. Solomon Cook Endowed Scholarship

- Native American
- Either freshman or senior
- Preference to student from the Akwesasne St. Regis Mohawk Reservation or graduate of Salmon River Central School
- High school average of B or better
- Financial need

William C. Cooper Endowed Scholarship

- Entering freshman student
- Business or Computer Information Systems curriculum
- Resident of St. Lawrence or Otsego County
- Highly-motivated, industrious student
- Active in extracurricular activities
- Financial need

Corning Foundation Endowed Scholarship

- Entering freshman student
- Electrical Engineering Technology curriculum
- Graduate of a St. Lawrence Co. high school
- Preference to women and minorities

Gregory W. Coughlin Annual Scholarship

- Entering freshman and returning senior
- Physical Therapist Assistant major
- Preference given to Massena Central School or Madrid-Waddington Central School District students

The Criminal Justice Endowed Alumni Award

- Must be a Criminal Justice student with financial need
- Determined by Criminal Justice department chair

Cross Connection Controls Scholarship

- Entering freshman student
- Air Conditioning Engineering Technology curriculum
- May retain for second year

Evan M. Dana Endowed Scholarship

- Freshman or senior student
- Veterinary Science Technology or Liberal Arts and Sciences: Chemistry option curricula
- Good academic standing
- Incentive, motivation

Ethelyn B. Davis Endowed Scholarship

- Returning senior student
- Nursing curriculum
- Demonstrated compassion, thoughtfulness, concern for the patient's well-being
- Academic achievement secondary

William D. Demo and Family Endowed Scholarship

- Entering freshman student
- Graduate of St. Lawrence Central School
- Accounting or Liberal Arts and Sciences: General Studies curriculum
- Financial need

Financial Assistance

Rosa Dixon Allied Health Endowed Scholarship

- Freshman or senior student
- Allied Health curriculum
- Financial need

Stuart B. Dragon Endowed Scholarship

- Entering freshman student
- Agriculture or Business curriculum
- First preference to Clinton County resident
- Secondly, any North Country resident

George and Eileen Fay Endowed Scholarship

- Entering freshman student
- Graduate of Massena or Canton Central School
- High school record of good citizenship, athletic involvement, and academic achievement
- Preference to Business curriculum

Linda Lahey Fay Nursing Award

- Graduating senior student
- Assisted fellow students/faculty members
- Awarded at Nursing Program Pinning Ceremony

Clement J. Flanagan Endowed Scholarship

- Entering freshman student
- Graduate of Canton Central High School
- Good academic standing
- Involvement in high school/community activities
- Financial need

Robert W. and Helen Flanders Farmer Endowed Scholarship

- Entering freshman student
- Graduate of Tupper Lake High School
- High school record of good citizenship and academic achievement
- Strong motivation to succeed in college
- Financial need

Nicole Fleury Memorial Endowed Scholarship

- Veterinary Science Technology major
- Graduate from a Section X high school
- Must demonstrate sportsmanship, leadership, compassion, and a love for animals and athletics

David A. Frary and Family Endowed Scholarship

- Returning senior student
- Graduate of a St. Lawrence County high school
- Business curriculum
- Financial need
- Preference to candidates intending to pursue a

baccalaureate degree

Albert E. French Endowed Scholarship

- Returning senior student
- Service to college community
- Financial need

Lawrence Germain Endowed Scholarship

- Veterinary Science Technology curriculum
- Financial need

John A. Goetze Endowed Scholarship

- Returning senior student
- Construction Engineering Technology or Engineering Science

Cleo J. Golding Endowed Scholarship

- Entering freshman student
- Meritorious academic record
- Financial need

Goolden Family Endowed Scholarship

- Entering freshman student
- St. Lawrence, Jefferson, or Franklin County resident
- Preference to candidates from Madrid or Waddington
- Leadership potential and ethical values

Harriett Gushea/Massena Memorial Hospital Nursing Endowed Scholarship

- Massena Memorial Hospital staff member in the Nursing program

Hahn-Kalberer Endowed Scholarship

- Second-year student, must be in two-year curriculum
- Non-traditional, 23 years or older
- Must have at least a 3.0 GPA
- Full tuition
- Application only

John L. Halford, Sr. Endowed Scholarship

- Entering freshman student, to be retained with 2.5 GPA
- Good academic standing
- Financial need

John L. Halford, Sr. Memorial Scholarship

- Awarded to a graduate of Gouverneur Central School who is enrolled in a four-year degree program
- Financial need may be considered

Heuvelton Central School Alumni Endowed Scholarship

- Entering freshman student
- Graduate of Heuvelton Central School
- Earned at least a “B” average through first 3-1/2 years of high school
- Good relationship with teachers and peers

- No history of drug or alcohol abuse
- Financial need

Dr. Harry E. Howe Endowed Scholarship

- Returning senior student
- Nursing curriculum
- Minimum 3.0 GPA
- Demonstrates Nursing professionalism

Henry Lawrence Howe, V Endowed Scholarship

- Returning senior student
- Learning disabled
- Preference to graduate from St. Lawrence County pursuing careers in technical fields, especially in computers or electrical/electronics

Harold K. Hughes Endowed Award for Ethical Behavior

- Criminal Justice student
- Will promote the importance of individual character and ethical behavior
- Leadership and service in the community
- To be awarded by Criminal Justice faculty prior to commencement

Paula Bouchard Jacques Endowed Scholarship

- Continuing student
- Must have earned “B” or better in Nursing 101
- Assisted fellow students in learning
- Demonstrated strong assessment skills, effective communication skills, and respect and caring for elderly client
- Announced at Nursing Program Pinning Ceremony; awarded during following academic year or semester

Charles W. Johnson Endowed Scholarship

- Entering freshman student
- High school academic record meritorious
- Preference accorded to Liberal Arts: General Studies/Undeclared Major who indicates an interest in majoring in the media
- Financial need

Betsy B. Kaplan Memorial Endowed Scholarship

- Continuing students in Veterinary Science Technology curriculum
- Must maintain 3.0 GPA cumulative
- To go to students who have demonstrated past involvement in animal welfare, work at a humane society or similar organization, or caring for abused animals in one's own home.

Jesse Kaufman Endowed Scholarship

- Entering freshman student
- Electrical Engineering Technology curriculum

Financial Assistance

Catherine M. Kelly Endowed Award for Excellence in Psychiatric Nursing

- Presented annually by the Nursing faculty to a graduating senior Nursing student who has a B or better average
- Demonstrates clinical excellence
- Strong interpersonal relationship skills
- A commitment to nursing of psychiatric clients

E.B. and Gladys Kennedy Endowed Scholarship

- Entering freshman student
- Commitment to community service
- Financial need

Harry E. King Endowed Scholarship

- Air Conditioning Engineering Technology curriculum
- 85 high school average

Richard C. King Endowed Scholarship

- Returning senior student
- Veterinary Science Technology curriculum
- Good academic standing
- Financial need secondary

Lloyd and Josephine Kingston Endowed Scholarship

- Entering freshman student
- Business curriculum
- St. Lawrence County resident
- Preference to graduate of Canton Central School

Walter R. Kingston Scholarship

- Entering freshman student
- Automotive Technology curriculum
- Preference given to Canton or St. Lawrence County students

Ernest C. Krag Endowed Scholarship

- Entering freshman student
- Liberal Arts-Social Science curriculum
- First preference to a student planning to pursue studies in government and history; second preference to a student from St. Lawrence or Franklin County; third preference to a Native American student

Edwin Krencski Memorial Scholarship

- Second-year student
- Electrical Engineering Technology curriculum
- Financial need

Aaron J. Lasher Endowed Scholarship

- Awarded annually to a deserving student
- One-year Heating & Plumbing certificate, returning student in Air Conditioning Engineering Technology two-year program, or the Facilities Operation four-year program
- Preference to Heuvelton Central School

graduate, secondly to a St. Lawrence or Jefferson County graduate

Garnett M. Lawrence Endowed Scholarship

- Entering freshman student
- Massena Central High School graduate
- B average
- Good relationships with teachers and peers
- No history of alcohol or drug abuse
- Financial need

Gordon and Beatrice Lawrence Endowed Scholarship

- Entering freshman student
- St. Lawrence Central School graduate
- B average through first three and one-half years of high school
- Have good relationship with teachers and peers
- Have no history of alcohol or drug abuse
- Financial need secondary

The Leadership Institute Endowed Scholarship

- Entering freshman student
- Graduate of a St. Lawrence County high school
- 85 high school average
- Demonstrate leadership potential by participating in student organizations (Operation Enterprise, High School of Excellence Program, Critical Issues Conference, Boys State or Girls State)
- Accounting/Facilities Management curriculum

Frederick C. and Karen Liebi Endowed Scholarship

- May be awarded to first-year or second-year student
- Awarded to Construction majors first, then to Canino School of Engineering Technology curriculums

C. Ernest and Dorothy B. Lowery Endowed Scholarship

- Returning senior student
- Demonstrate academic excellence
- Financial need

Albert F. and Agnes Powers Luck Endowed Scholarship

- Entering freshman student
- Preference accorded to students from Seton Catholic Central or Plattsburgh High School; second preference to a resident of Clinton, Essex, or Franklin County
- Civil or Construction Engineering Technology curriculum
- Academic potential

Dr. Earl W. MacArthur Honors Scholarship

- Entering freshman
- Must meet two of the following categories: Top five percent of high school class; 93 or better high school average; combined SAT of 1250 or ACT of 28 or better
- Must maintain 3.25 GPA to retain scholarship

Joyce A. MacArthur/CTC Women Endowed Scholarship

- Returning senior student
- Outstanding scholar
- Demonstrates exemplary college or community service

Dr. Michael and Barbara Maresca Family Endowed Scholarship

- Awarded to both an entering freshman and continuing senior in the nursing program
- Preference given to students demonstrating leadership skills and community service
- Preference given to students from Canton-Potsdam Hospital and Massena Memorial Hospital areas

Mater Dei Scholarship

- Ogdensburg Diocese area resident
- Returning senior
- Demonstrated financial need
- 3.0 GPA

David R. Maynard Endowed Scholarship

- Entering freshman student
- Academic and extracurricular high school activity meritorious
- Financial need

Fulton and Anna McAllister Endowed Scholarship

- Returning senior student
- Nursing curriculum
- St. Lawrence County resident
- Demonstrated academic improvement
- Financial need

Virginia McAllister Endowed Award for Excellence in Nursing

- Graduating senior student
- Nursing curriculum
- Demonstrate academic and clinical excellence and initiative
- Awarded at pinning ceremony

Kenneth R. McDonald/Howland Pump Scholarship

- Either freshman or senior
- Air Conditioning Engineering Technology or Heating & Plumbing curriculum
- St. Lawrence County resident

Robert McKenty and Family Scholarship

- Awarded annually to two students
- Construction-related program
- Financial need

Merriman Family Endowed Scholarship

- Entering freshman student
- High school record, academics, and extracurricular activities, with merit
- Graduate of Colton-Pierrepont Central School, Norwood-Norfolk Central School, or Potsdam Central School
- Financial need

Susanne Connick Merritt Endowed Scholarship

- Returning senior student; must have completed two semesters full-time study at SUNY Canton in Accounting curriculum
- Outstanding scholar
- Participation in extracurricular activities on and off campus

Richard W. Miller Endowed Scholarship

- Entering freshman and continuing students
- Electrical Engineering Technology curriculum

Modell Family Endowed Scholarship

- Returning student Electrical Engineering Technology curriculum
- Preference to student from Onondaga County

Peter Nevaldine Endowed Scholarship

- Entering freshman student
- Engineering Technology or one-year certificate program in Canino School of Engineering Technology
- High academic standing
- Participation in extracurricular activities
- Financial need secondary
- A 3.0 GPA is required first semester to receive the second semester award

Allan P. & Catherine Barnett Newell Endowed Scholarship

- Second-year student
- North Country student from Clinton, Essex, Franklin, Jefferson, Lewis, or St. Lawrence Counties
- First preference to, but not restricted to, Veterinary Science Technology majors
- Evidence of leadership qualities, service to community, athletic involvement, and participation in a variety of extracurricular activities will be viewed upon favorably in the selection process
- The recipient must maintain a 3.0 GPA to retain the scholarship for a consecutive semester of study
- Financial need is to be considered

New York State Federation of Home Bureaus, Inc., in Honor of Audrey J. Hall Scholarship

- Continuing full-time student
- Early Childhood or Nursing curriculum
- 2.85 or better GPA
- Resident of counties where there are organized chapters of New York State Federation of Home Bureaus, Inc.

Elwood J. Nicholson, Jr. Endowed Scholarship

- Entering freshman student
- Recipient shall be Engineering Technology and Science and performance in and out of classroom exemplary
- Preference to Air Conditioning Engineering Technology/ Heating and Plumbing Service
- Financial need

E. J. Noble Guild of Canton-Potsdam Hospital Annual Nursing Scholarship

- Second-year Nursing student
- St. Lawrence County resident
- Preference to non-traditional student

Robert A. Noble, Sr. Endowed Scholarship

- To further the talents of youth in engineering and nursing
- Returning senior student
- Electrical Engineering Technology or Nursing curriculum
- Vermont or North Country resident

John P. Ouder Kirk Endowed Scholarship

- Returning senior student
- Canino School of Engineering Technology
- Academic performance during freshman year at SUNY Canton meritorious
- Preference accorded to students who have grown through scouting
- Financial need

Perry Family Scholarship

- Awarded to a St. Lawrence County resident
- Preference given to students from an agricultural background

Dr. William F. Peters Tech Prep Endowed Scholarship

- Entering freshman student
- BOCES graduate
- Preference to Tech Prep participants

Phi Theta Kappa Endowed Scholarship

- Returning senior student
- Must show leadership qualities and have participated in college and community activities
- Must have at least a 3.75 cumulative GPA

Elaine Claxton Pidgeon Endowed Scholarship

- Returning senior student
- Nursing curriculum
- Demonstrates academic excellence
- Financial need

Plumbing, Heating, and Piping Contractors of Northern New York Endowed Scholarship

- Entering freshman student
- One-year Heating & Plumbing curriculum
- Resident of Jefferson, Lewis, or St. Lawrence County
- Good academic standing
- Financial need

Harry & Ella Winslow Podgurski Endowed Scholarship

- Entering freshman student
- Canino School of Engineering Technology
- Massena Central School graduate
- Has been a positive member of the high school community
- Financial need

Jean M. Poticher Endowed Scholarship

- Entering freshman student
- Resident of St. Lawrence County
- Good citizenship
- Enrolled in a Business curriculum
- Financial need

Lorence F. Pries Endowed Scholarship

- Entering freshman student
- Electrical Engineering Technology curriculum
- Good academic potential
- Participation in extracurricular activities
- Financial need

Bernard Creighton Regan Endowed Scholarship

- Massena Central School graduate preferred; if not one available, then St. Lawrence County
- Electrical or Air Conditioning Engineering Technology
- Financial need

Gerald E. Rice Endowed Scholarship

- Entering freshman student
- Canino School of Engineering Technology
- Preference to non-traditional student

W. Stanley and Alice E. Richardson Endowed Scholarship

- Returning senior student
- Enrolled in a Business curriculum
- Student from St. Lawrence County
- Meritorious academic record and motivation to succeed in business

Financial Assistance

John F. Ruitberg Endowed Scholarship

- Entering freshman
- Student from St. Lawrence County
- Business or Liberal Arts-Social Science curriculum

William & Beatrice Schermerhorn Endowed Scholarship

- Returning senior student
- Veterinary Science Technology curriculum
- Demonstrates a humane ethic and a personal commitment to animals

Siemens Building Technologies, Inc. Scholarship

- Entering freshman student
- Air Conditioning Engineering Technology curriculum
- Students making normal academic progress may receive scholarship for second year of study

St. Lawrence County Dental Society Annual Scholarship

- Dental Hygiene curriculum

St. Lawrence Gas Scholarship

- Business or Canino School of Engineering Technology curriculums
- North Country resident
- Financial need

St. Lawrence State Hospital School of Nursing Alumni Association Endowed Scholarship

- Returning senior student
- Nursing curriculum
- Empathy, leadership, patient advocacy
- North Country resident

Bill and Peg Stalder Endowed Scholarship

- Entering freshman student
- Good academic potential
- St. Lawrence County resident
- Financial need

Jay F. Stone Endowed Scholarship

- Entering freshmen student
- Air Conditioning Engineering Technology
- Financial need may be considered

John H. & Eunice B. Stone Endowed Scholarship

- Senior student
- Preference to part-time student
- Demonstrated financial need

David W. Sullivan Memorial Endowed Scholarship

- Entering freshman student
- Criminal Justice curriculum
- Graduate of a St. Lawrence County high

- school
- School or community service involvement

SUNY Canton/Empire State Diversity Honors Scholarship

- Entering freshman student
- High school average B or better
- Native American, African American, or Hispanic
- Recipients maintaining a 2.75 GPA may retain the scholarship for a second year of study
- Financial need

Thompson-Weatherup Family Charitable Foundation Scholarship

- Non-traditional Nursing student
- Entering in the spring semester
- Must have at least one year prior nursing experience
- Resident of St. Lawrence County
- Desires employment after graduation in the North Country

Tougher Industries, Inc. Endowed Scholarship

- Entering freshman student
- Air Conditioning Engineering Technology curriculum
- Financial need

Harold C. Town Endowed Scholarship

- Entering freshman student
- Graduate of Norwood-Norfolk Central School
- Meritorious high school record
- Financial need

T. J. Toyota and Cloce Family Endowed Scholarship

- Automotive Technology curriculum
- Performance must demonstrate potential for success
- Financial need may be a consideration

Grace Jones-Vesper Business Scholarship

- Second-year student
- Business Administration curriculum
- Must have maintained a B average
- Preference to a non-traditional student
- Financial need also considered

Arlington Walker Endowed Scholarship

- Returning senior student
- Criminal Justice curriculum
- Resident of St. Lawrence County

John H. Wells Memorial Endowed Scholarship

- Entering freshman student
- Air Conditioning Engineering Technology curriculum
- Second preference to Heating & Plumbing

curriculum

Arthur S. Wheeler Endowed Scholarship

- Freshman or senior student
- Veterinary-related curriculum
- Preference to student from town of Oswegatchie

Woodcock Family Endowed Scholarship

- Financial need
- Preference to students from St. Lawrence County, then Onondaga County
- Mechanical Engineering Technology curriculum
- Additionally, to students in any curriculum with special preference to women

Woodside Family Endowed Scholarship

- Entering freshman or returning senior
- Air Conditioning Engineering Technology curriculum
- Preference to students from St. Lawrence or Erie County
- Financial need

The Katherine '77 and Peter Wyckoff Scholarship

- Either entering or continuing Nursing student
- Non-traditional student

GUIDELINES FOR SATISFACTORY ACADEMIC PROGRESS

Students receiving financial aid are required to maintain minimum program pursuit and academic progress standards in order to continue to receive assistance. The requirements differ for State aid (TAP, etc.) and Federal aid (PELL, FSEOG, PERKINS LOAN, FWS, STAFFORD LOAN, EOP, etc.). The following charts indicate the standards to be achieved minimally. Also, **federal regulations require students to complete degree requirements within ninety (90) attempted hours or 150% of their normal program length.**

In addition to these charts, students must complete 50% of a full-time load in their first two semesters, 75% of a full-time load in their third and fourth semesters and 100% of a full-time load (12 credit hours) for each subsequent semester to remain eligible for TAP. To maintain federal aid eligibility, a student must earn the minimum

Financial Assistance

Certificate Programs

SEMESTERS COMPLETED	EARNED CREDITS	CUMULATIVE GPA
1 STATE	3	0.5
FEDERAL	9	1.25
2 STATE	9	0.75
FEDERAL	18	1.5
3 STATE	18	1.3
FEDERAL	27	1.75

number of credit hours required under the College's academic re-registration standards (see Academic Requirements section).

If a student fails to meet state academic progress requirements he/she loses TAP/APTS eligibility for two semesters.

If a student fails to meet federal academic progress requirements he/she loses all federal aid eligibility until they bring themselves into compliance or a waiver is issued.

Transfer students and/or continuing education students matriculating in a degree or certificate program will be placed in sequence depending on the amount of credit awarded toward the latest program requirements.

The requirements for a part-time, matriculated student will be adjusted according to the number of credits taken: Half-time students (6-8 credits)—50% of credits accrued: Three quarter-time students (9-11 credits)—75% of credits accrued. The number of semesters eligibility will be adjusted accordingly.

A one-semester probationary period may be granted to a student if he/she falls below the minimum federal standard. Students in this category are considered to be making satisfactory progress in their chosen program and are in good academic standing. The student must meet the guidelines as

Associate Degree Programs

SEMESTERS COMPLETED	EARNED CREDITS	CUMULATIVE GPA
1 STATE	3	0.5
FEDERAL	9	1.25
2 STATE	9	0.75
FEDERAL	18	1.5
3 STATE	18	1.3
FEDERAL	27	1.75
4 STATE	30	2.0
FEDERAL	39	2.0*
5 STATE	45	2.0
FEDERAL	51	2.0*
6 STATE	60	2.0
FEDERAL	63	2.0*

* Semester or cumulative Grade Point Average

outlined above at the end of the probationary period in order to continue receipt of financial aid.

An appeal of the above requirements may be permitted if the student is below the Federal minimums stated. This appeal may be considered for extraordinary circumstances and must be in the best interest of the student.

A one-time waiver of the above requirements may be permitted if the student falls below the State minimums stated. This waiver can be considered for extraordinary extenuating circumstances and must be in the best interest of the student.

The above standards are designed for retention of financial aid for subsequent semesters. Certain scholarship programs may have requirements different from the above due to specific desires of the donors. Also, these standards, although similar, do not replace the academic requirements for progression toward a degree or certificate.

Please Note: Suspension from college supersedes all of these requirements.

Questions should be directed to your

Bachelor's Degree Programs

SEMESTERS COMPLETED	EARNED CREDITS	CUMULATIVE GPA
1 STATE	3	1.1
FEDERAL	9	1.25
2 STATE	9	1.2
FEDERAL	18	1.5
3 STATE	21	1.3
FEDERAL	27	1.75
4 STATE	33	2.0
FEDERAL	39	2.0*
5 STATE	45	2.0
FEDERAL	51	2.0*
6 STATE	60	2.0
FEDERAL	63	2.0*
7 STATE	75	2.0
FEDERAL	75	2.0*
8** STATE	90	2.0
FEDERAL	90	2.0*
9** STATE	105	2.0
FEDERAL	105	2.0*

* Semester or cumulative Grade Point Average

** EOP students only for state criteria

School Dean or the Director of Financial Aid.

REPEAT OF "D" GRADES AND STATE FINANCIAL AID ELIGIBILITY

Repeat of any course in which a passing grade (D or above) has already been received and which the College does not require the student to repeat may not be considered as part of that student's minimum course load for State financial aid purposes (that is, the New York State TAP Award). In addition, the repeated course may not be considered in determining whether the student has met the Pursuit of Program Requirement and is in good academic standing. The student should check with his/her advisor and/or the Student Service Center to determine if repeating a course will affect his/her state TAP Grant eligibility.



The Academic Program

RESPONSIBILITIES

FACULTY RESPONSIBILITIES

Faculty members have the responsibility of ensuring an educational environment that promotes academic excellence. All individuals have the right to a positive secure environment, one in which persons can realize their potential as intellectual, social, political, economic and creative beings.

STUDENT RESPONSIBILITIES

It is the students' responsibility to know and abide by the requirements for their programs and courses published in college publications and course outlines. Further, it is the students' responsibility to utilize the college environment, resources and professionals therein to meet requirements which shall assist in both academic and personal growth.

ATTENDANCE, CONDUCT, GRADES

ATTENDANCE

Students are expected to accept full responsibility for meeting all of the academic requirements for every course in which they are enrolled. Attendance regulations are determined by the faculty of each department based upon their academic requirements for each curriculum and/or course. At the beginning of each semester, faculty will state clearly the attendance policy in their course syllabus. Notice of course failure may result from unexcused absenteeism. A grade of "F" will be recorded for a student unless the student makes formal application for withdrawal from that course prior to the semester deadline for withdrawing without academic penalty, consistent with the college withdrawal policy. Forms may be obtained from School Deans' Offices or online at: www.canton.edu/registrar/withdrawal_form.pdf. Suspension from college may be imposed by the Provost/Vice President for Academic Affairs if ab-

senteeism has reached such proportions that further academic progress is not possible, with grades of "F" for courses not completed as of the suspension date.

DEVIANT ACADEMIC CONDUCT

The instructor may impose a penalty upon a student evidencing prohibited academic behavior. When there is evidence of plagiarism a student may be assigned a grade of "F" for the assignment and/or course. These consequences should be included in a class syllabus. Similarly, a student may be dismissed from a course with a grade of "F" as a consequence of intentional disruption, obstruction or comparable class misconduct. These consequences should be included in the class syllabus. After written notification of the charge by the instructor, students may initiate the academic student grievance procedure if they believe they have proof that the charge is unwarranted.

STUDENT GRADES

The permanent record is the official academic record and is permanently filed in the Registrar's Office. Only personnel authorized by the Registrar may have direct access to permanent records.

Final and mid-term grades are available to students online through secure access to UCanWeb. Final grades will only be mailed to the student's home address by special request to the Registrar's Office. Final grades may be withheld from any student who has a delinquent college obligation.

TRANSCRIPTS

A properly signed authorization by the student must precede any external distribution of a student's transcript. An official transcript will be impressed with the college seal. Each student will be assessed an official transcript fee of \$5 per semester, which allows students unlimited lifetime transcripts. The College reserves the right to deny transcripts to any student who is delinquent in an obligation to the College.

GRADING AND HONOR DEFINITIONS

A credit hour is defined as three hours work per week per semester in any combination of class, laboratory and outside study time.

PASSING GRADE

A, B+, B, C+, C, D+, D and P are passing grades. The grade considered satisfactory for completion of a course as a prerequisite for subsequent courses or activities will be determined by each department or program and stipulated in the course description.

GRADE POINT AVERAGE

The Grade Point Average is determined by dividing the total grade points earned by the total academic credit hours attempted (not including W's, I's, P's, or Equivalent Credits).

Letter Grade	Grade Pts. per Credit Hr.
A	4.00–Excellent
B+	3.50–Very Good
B	3.00–Good
C+	2.50–Above Average
C	2.00–Average
D+	1.50–Below Average
D	1.00 Minimally Passing
F	0.00–Failing

HONORS LISTS

Honors Lists for each semester will be prepared by the Registrar's Office and sent to the Office of Public Relations for distribution to the news media. Media releases will not include the names of students who have restricted the release of directory information pursuant to FERPA (p. 49).

President's Honors Lists will include the names of full-time students who earn semester GPA's of 3.75 or higher. To be eligible, students must be enrolled in 12 or more academic credit hours graded A to F.

Dean's Honors Lists will include the names of full-time students who earn semester GPA's of 3.25 or higher. To be eligible, students must be enrolled in 12 or more

academic credit hours graded A to F.

Part-Time Academic Honors Lists will include the names of part-time matriculated students who earn semester GPA's of 3.25 or higher. To be eligible, students must complete 6 or more academic credit hours graded A to F.

MAXIMUM STUDENT LOAD

Nineteen credit hours will constitute a maximum course load per semester. Additional hours may be undertaken only with the approval of the Dean of the School in which the student is enrolled.

WITHDRAWAL FROM COURSES

Students may withdraw from credit courses without academic penalty (receiving a grade of "W") under the following conditions, unless dismissed for deviant academic conduct:

- In order to maintain the academic integrity of the institution, the academic focus of the students and adequate student academic progress toward a degree, a matriculated full-time student may not drop courses below a 12-credit hour load while a semester is in progress. In case of exceptional circumstances beyond the student's control and with the written approval of the Dean of the School in which the student is enrolled, a student may drop below the limit to part-time status. Students are encouraged to consult with the offices of Financial Aid and Residence Life to determine the impact of this academic decision before dropping to part-time status.
- Withdrawal from a course is accomplished by means of a Drop/Add Form available in the Deans' Offices and Registrar's website at www.canton.edu/registrar. This form must be signed by the advisor and the Dean of the School. A \$20 fee must be paid at the Student Service Center and the completed form delivered by the student to the Registrar's

Office. The course withdrawal will not be official until the form, fully completed, is received by the Registrar.

- Withdrawal is allowed under the above conditions prior to the last ten class days of the semester. In courses less than a semester in length, withdrawal is allowed prior to completion of 85 percent of the class meetings.
- A matriculated part-time student may not withdraw from any course unless exceptional circumstances exist and the above procedure is followed.
- Non-matriculated students are not subject to these conditions and are not required to pay the \$20 fee.
- A student may withdraw from a course only once under the above conditions. A subsequent withdrawal from the same course will result in an "F" (failing) grade unless there are extenuating circumstances acceptable to the Dean of the School in which the student is enrolled.
- Signatures of the advisor, and School Dean do not necessarily indicate approval of the action, but signify that counseling has occurred and the student is fully aware of the consequences of course withdrawal.
- Failure to attend class or merely giving notice to an instructor is not an official withdrawal.
- A grade of "W" (Withdrawn) will be recorded for courses dropped and will not be used in calculating GPA.
- Students may withdraw from non-credit courses. Official notice must be given in writing by the student to the Lifelong Learning Center director. When the Director has been informed, official withdrawal will be executed with copies to the student, instructor, Registrar and Student Service Center.

REPEATING COURSES

Students may repeat courses. If higher, the grade earned in the repeated course shall be substituted for the original grade in computing the GPA.

MIDTERM GRADES

1. At midterm, faculty members will submit student grades electronically for all courses they are teaching or supervising via secure access through UCanWeb, the online student information system.
2. Faculty members may choose to report midterm grades with the same letter grade designations used for course grades; or as S (satisfactory), which indicates a grade of C or better, or U (unsatisfactory). Students will be informed of the faculty member's methods of determining and reporting midterm grades in the course syllabus distributed at the beginning of each semester.
3. All mid-term grades are available to students electronically through secure access to UCanWeb. Students receiving grades of D+, D, F or U should seek out their instructors/academic advisors to identify the problem, seek additional support services (tutoring labs), and make the necessary improvement.

FINAL EXAMINATION

There will be a final examination period at the end of each semester. This period must be used by the professor for a comprehensive final examination, the last unit test, or some other activity of academic merit.

INCOMPLETE GRADES

An incomplete grade may be assigned by a faculty member in cases when, for valid reasons (sickness, accident, etc.), all of the required work has not been completed, but is otherwise satisfactory. Except in unusual cases, the delinquent work should not exceed 10-20 percent of the total required work.

Responsibility for making up incomplete work lies with the student. Incomplete work must be made up within two weeks after the first day of classes in the subsequent semester. Alternate arrangement (shorter or longer time frame) can be implemented if agreed upon by the instructor and student and approved by the Dean of the School. If

the work is not completed according to the agreed upon plan, the incomplete grade will be recorded as "F" on the student's record.

SCHEDULING

The Registrar prepares a master schedule for each session of the College. The normal college academic day is 8 a.m. to 10 p.m.

The Registrar arranges for and coordinates the preregistration of new and returning students for each semester. Following advisement, continuing students schedule their classes for the subsequent semester through secure access to the online student information system. Students who do not preregister may register for courses on a space-available basis.

Course changes after the first three days of classes shall not be allowed except by petition. Extenuating circumstances should be present and the petition must be signed by the student, the instructor, the advisor or Department Chairperson and approved by the School Dean. All changes will utilize the course change notice (drop/add form).

COURSE AUDIT

With permission of the instructor, a person may audit any credit course offered by the College. A maximum of two courses may be audited in one semester, unless a waiver is obtained from the Provost. An individual may not audit the same course in two consecutive semesters. The Course Audit Form, which is available from School offices or the Registrar, must be completed and returned to the Registrar's Office. Course audits require a registration fee of \$50 per course, but are free of charge for those 60 years of age and over. Individuals may not begin auditing a course until the registration process is completed as described on the course audit form. Once the individual has elected to audit a course, one cannot subsequently change the audit to credit. No credit is granted for audited courses. The course auditor will abide by the conditions agreed to by the instructor and auditor as stated on the course audit form.

Auditors must adhere to the Student Code of Conduct as published on the college web site, in the Student Handbook and in each course syllabus. Permission to audit may be revoked for disruptive or inappropriate behavior. Campus student services (i.e. Academic Support Services, Counseling, etc.) are not available for course auditors.

WITHDRAWING FROM THE COLLEGE

Students wishing to withdraw from the College must obtain and sign a withdrawal form from the appropriate School Dean or Registrar's website. In the case of non-matriculated students, the form is to be obtained from the Registrar's Office.

Matriculated students must obtain the signatures of the 1) School Dean, 2) Counselor (or EOP Counselor for EOP students), 3) Student Service Center Officer, and 4) Registrar.

Non-degree students must obtain signatures from the Student Service Center and Registrar.

Students may not officially withdraw from college during the last ten instructional days of a semester, exclusive of the final exam period.

The withdrawal will not be considered official until the official withdrawal date has been entered by the Registrar's Office. All signatures must be obtained and the completed form presented to the Registrar by the individual withdrawing.

ACADEMIC FORGIVENESS POLICY

The intent of this policy is to allow students who previously accrued a SUNY Canton academic record with a substantial number of grades below the 2.00 level of C to be "forgiven" for their earlier performance, if they meet certain criteria.

Academic Forgiveness in this context means that the student's previous college work shall be treated as if it had been transferred to SUNY Canton from another college: none of the grades received would be counted in the current GPA, but the

student would receive credit for any courses in which he/she earned a C or above. All General Education requirements completed during prior attendance would continue to count as requirements met, but only courses with a C or higher grade would be included in credits earned toward the degree, at the discretion of the School Dean.

Students wishing to apply for the privilege of Academic Forgiveness must meet the following criteria:

1. The student must not have taken any coursework at SUNY Canton for a minimum of two calendar years at the time of proposed readmission.
2. The student must complete the Academic Forgiveness Application Form at the time of application for readmission. The application will include a reflective summary of why he/she should be considered for the privilege.
3. The student will not have attempted more than two semesters of coursework at SUNY Canton prior to readmission if enrolled in an associate degree program, or more than four semesters of coursework if enrolled in a bachelor's degree program. Students must complete at least one half of their degree requirement credits at SUNY Canton after forgiveness is granted.
4. The student is not eligible to receive Academic Forgiveness until he/she has completed a full-time semester of at least 12 credit hours as a readmitted student. In this probationary semester, the student must receive at least a C in every course and is not permitted to withdraw from any courses.
5. The student will be placed on academic probation for this first semester after readmission.
6. Upon completion of the probationary semester, if all requirements for Academic Forgiveness have been met, the School Dean will notify the Registrar so that the student's academic record may be modified.

7. If approved for Academic Forgiveness, a notation to this effect will be made on the student's SUNY Canton transcript and a new cumulative GPA will be calculated for all work beginning with the semester of readmission. This new GPA will be printed on the official transcript and used for computing the student's academic standing, and for meeting the minimum GPA requirement for graduation. All previous SUNY Canton work will continue to be listed on the transcript with the original grades received.
8. Academic Forgiveness may be granted only once in a student's college career at SUNY Canton.
9. Implementation of Academic Forgiveness does not alter financial aid eligibility.

Students applying for Academic Forgiveness must also apply for readmission. See page 9 for more details.

GRADUATION—DEGREES AND CERTIFICATES

The College is authorized to grant the Bachelor of Technology (B.Tech.) degree, Bachelor of Science (BS), and the Bachelor of Business Administration (BBA) degree each requiring a minimum of 120 credit hours; four associate degrees, each requiring a minimum of 60 credit hours; and the Certificate, requiring a minimum of 30 credit hours. The associate degrees are the Associate in Applied Science (AAS), Associate in Science (AS), Associate in Arts (AA), and Associate in Occupational Studies (AOS).

GENERAL EDUCATION REQUIREMENTS

The General Education Program at SUNY Canton is designed to provide students, throughout their college years, with a broad set of coherent and focused educational experiences aimed at enabling them to acquire knowledge and skills that

are useful and important for all persons, regardless of their jobs or professions. General Education goes beyond the acquisition of the skills necessary to be competent in a field of specialization. It involves the discovery, evaluation, and transmission of essential knowledge that prepares students to lead fulfilled lives and to assume roles as creative and contributing members of society.

In accordance with the SUNY Board of Trustees Policy on General Education, all entering freshmen must meet specific General Education requirements. Faculty and students will periodically be required to engage in assessment activities to ensure that the General Education learning outcomes are being met. At SUNY Canton, students enrolled in the Associate of Arts (AA) or Associate of Science (AS) degree must complete seven of the ten Knowledge and Skills Areas of General Education in order to transfer seamlessly to another SUNY college to earn a baccalaureate degree. In order to meet graduation requirements, students enrolled in a SUNY Canton baccalaureate degree program must complete 30 credit hours of general education which must include Mathematics (GER 1) and Basic Communication (GER 10) as well as at least three credits each in at least five of the following academic areas – natural science, social science, American history, Western Civilization, Other World Civilizations, humanities, the arts and foreign languages. (See individual baccalaureate degree requirements for exceptions to this mandate.) All students will fulfill competency outcomes in Critical Thinking and Information Management, which are infused throughout the curricula. Courses meeting specific General Education knowledge and skill areas are so designated in the course description section of the catalog. Students should work carefully with their advisors to ensure they are fulfilling the SUNY General Education Requirements (GER) in order to transfer seamlessly to another SUNY college or to meet SUNY Canton baccalaureate graduation requirements.

SUNY GENERAL EDUCATION REQUIREMENTS

I. KNOWLEDGE AND SKILL AREAS (GER 1-10)

1. Mathematics
2. Natural Sciences
3. Social Sciences
4. American History
5. Western Civilization
6. Other World Civilizations
7. Humanities
8. The Arts
9. Foreign Language
10. Basic Communication

II. COMPETENCIES

1. Critical Thinking (Reasoning)
2. Information Management

GRADUATION REQUIREMENTS

The College reserves the right to make modifications to a prescribed curriculum.

BACCALAUREATE DEGREES

1. A student must be matriculated in a SUNY Canton curriculum for a minimum of 30 semester credit hours of graded course work earning a minimum GPA of 2.00 for all such credit hours taken. Individual programs may have additional graduation requirements.
2. The successful completion of the prescribed curriculum.
3. The successful completion of a writing intensive course taught within the prescribed curriculum.
4. The successful completion of SUNY Canton Computer Competency requirement (see page 37).
5. The earning of an overall GPA of 2.00 unless otherwise prescribed.
6. Payment of all financial obligations to the College.

ASSOCIATE DEGREES

1. A student must be matriculated in a SUNY Canton curriculum for a

The Academic Program

minimum of 15 semester credit hours of graded course work, earning a minimum GPA of 2.00 for all such credit hours taken. Individual programs may have additional graduation requirements.

2. The successful completion of the prescribed curriculum.
3. The successful completion of a writing intensive course taught within the prescribed curriculum.
4. The successful completion of SUNY Canton Computer Competency requirement (see page 37).
5. The earning of an overall GPA of 2.00 unless otherwise prescribed.
6. Payment of all financial obligations to the College.
7. Students matriculated in a baccalaureate program for a minimum of fifteen semester credit hours of graded course-work, earning a minimum GPA of 2.00 for all such credit hours taken, may be granted an associate degree in a related curriculum, without matriculation in that curriculum, upon completion of all associate degree requirements and application to the School Dean for the associate degree program.

Students failing to graduate due to failure, deficiency of grade points or credit hours, may be granted the degree after successful completion of the work either at SUNY Canton or another accredited college within seven years of departure. These hours must have the prior approval of the School Dean or Department Chairperson. Students may repeat through transfer a maximum of three courses with grade points from other colleges. All other courses transferred will be recorded as "CR" credit only.

CERTIFICATE PROGRAMS

1. A student must be matriculated in a SUNY Canton curriculum for a minimum of 12 semester credit hours of graded course work, earning a minimum grade point average of 1.75 for all such credit hours taken. Individual programs

may have additional graduation requirements.

2. Successful completion of all required courses.
3. A minimum GPA of 1.75, unless otherwise specified in the section describing that Certificate in the catalog.
4. Payment of all financial obligations to the College.

NOTE: Successful completion of a Certificate Program does not automatically qualify a student for admission to a degree curriculum. In order to be admitted to a degree curriculum, the graduate of the Certificate Program must achieve a record that indicates a reasonable probability of success in the new curriculum and be recommended by the faculty.

GRADUATION WITH HONORS

Honors for the Commencement Program are based on cumulative GPA to December 31 of the year prior to commencement.

Honors	GPA not less than 3.25
High Honors	GPA not less than 3.50
Highest Honors	GPA not less than 3.75

Upon program completion, students who have earned cumulative GPA's as listed above will be designated for Honors, High Honors, or Highest Honors on their diplomas and transcripts.

AWARDING TWO BACCALAUREATE DEGREES

In order to qualify for a second baccalaureate degree from SUNY Canton, a student must satisfactorily complete at least 30 semester credit hours beyond the first degree requirements and also meet the specific curriculum requirements of the second program. All of the subsequent work should be taken in an essentially different area of specialization.

A student who wishes to earn a second baccalaureate degree at SUNY Canton must have written approval of course requirements by the appropriate School Dean. When the required courses are completed,

the School Dean will notify the Registrar that the student is to be certified for the additional degree. No student may be awarded two degrees within the same minimum time span.

AWARDING TWO ASSOCIATE DEGREES

No student may be awarded two associate degrees simultaneously within the same minimum time span. In order to qualify for a second associate degree from SUNY Canton, a student must satisfactorily complete at least 15 semester credit hours beyond the first degree requirements and also meet the specific curriculum requirements of the second program, all of the subsequent work to be taken in an essentially different area of specialization.

A student who wishes to earn an additional associate degree at SUNY Canton must have written approval of course requirements by the appropriate School Dean. When the required courses are completed, the School Dean will notify the Registrar that the student is to be certified for the additional degree.

COMPUTER COMPETENCY REQUIREMENT

The SUNY Canton Computer Competency requirement ensures each student has or obtains the basic computer skills necessary for word processing, spreadsheet utilization, graphical presentation, and online course participation. This requirement is fulfilled in one of two ways. First, students satisfactorily completing SOET110 or CITA110 (required in many curricula) will meet the requirements of Computer Proficiency. Second, students not scheduled to take either of these courses for their major will be required to complete an online assessment of basic computer skills. The assessment will identify specific areas where assistance may be needed. If further assistance is needed, resources will be available through tutorials available online or at the library. Students are encouraged to complete

this requirement as early in their studies as possible to assure that any deficiencies are addressed as soon as feasible. The assessment may be repeated until successful at which time the Registrar's Office is notified. Students are informed via campus email of the assessment's availability along with instructions during the first few weeks of the semester. Details regarding Computer Competency and associated objectives may be found at <http://www.canton.edu/academics/computer.html>.

ACADEMIC INFORMATION

STUDENT CLASSIFICATION

FULL-TIME STUDENT: one who is enrolled for 12 or more semester hours of credit.

PART-TIME STUDENT: one who is enrolled for less than 12 semester hours of credit.

MATRICULATED STUDENT: a student who has made formal application to and been admitted into the College as a degree or certificate seeking candidate.

NON-MATRICULATED STUDENT: a part-time student who has not made application for nor been admitted into the College as a degree or certificate seeking candidate.

FRESHMAN: a student who has earned 0–30 credit hours, all of which must be a part of a degree program offered by the College.

SOPHOMORE: a student who has earned 31–60 credit hours, all of which must be a part of a degree program offered by the College.

JUNIOR: a student who has earned 61–90 credit hours, all of which must be a part of a degree program offered by the College.

SENIOR: a student who has earned 91+ credit hours, all of which must be a

part of a degree program offered by the College.

ACADEMIC REQUIREMENTS

To register for the second or any subsequent semester, a full-time matriculated, degree student must achieve the following standards or have the approval of the Dean of the School in which the *student* is registered.

Students who do not meet re-registration requirements may, at the discretion of the appropriate School Dean, be placed on either suspension or academic probation.

Students placed on academic probation who fail to meet all requirements of the program may be immediately suspended. Probation is a privilege and not a right: students pursuing either a certificate or associate degree may be granted a maximum of one semester of registration on academic probation, and students pursuing a baccalaureate degree may be granted a maximum of two non-sequential semesters of registration on academic probation during their academic career at SUNY Canton.

To register for the second semester, a student must attain a GPA of 1.25 and earn at least nine semester credit hours.

To register for the third semester, a student must attain a cumulative GPA of 1.50 and have earned at least 18 semester credit hours.

To register for the fourth semester, a student must attain a cumulative GPA of 1.75 and have earned at least 27 semester credit hours.

To register for the fifth and any subsequent semester, a student must have earned at least 12 credit hours in the previous semester and have maintained a semester or cumulative GPA of at least 2.00.

Any matriculated student who earns an index of less than 1.50 in each of two consecutive semesters may be suspended. Exceptions to this rule may be made by the School Dean.

Any student who is suspended from College for academic reasons will not be

allowed to register at the College the semester following his/her suspension. The student may reapply for admission, after one or more semesters' absence, by writing to the Director of Admissions. Permission to reregister is not automatic and will be granted only after approval by the appropriate School Dean.

Students suspended or dismissed from the college for disciplinary reasons will receive all grades for courses completed. Suspensions or dismissals which are the result of disciplinary recommendations by the Student/Faculty Board to the President may also include grade recommendations concerning the transcript of the student for the semester in which suspension or dismissal was imposed.

Students who voluntarily withdraw from College will be permitted to re-register with the concurrent written approval of the Director of Admissions and the School Dean of the requested curriculum.

None of this section should be construed to give the student an absolute right to reregister at the College if the student has the appropriate cumulative index. All other college regulations concerning student behavior continue to apply, and re-registration is in no way guaranteed to any student.

TRANSCRIPT EVALUATION FOR READMISSION AND CURRICULUM CHANGES

Upon enrollment in a new curriculum or readmission, all prior college credit, both institutional and transfer, is evaluated for applicability and currency to the program. All prior courses that do not meet requirements of the curriculum are excluded from credits earned and GPA calculations. Only those transfer credits which fulfill requirements of the curriculum will be recorded as transfer credit and included in credit hours earned. This policy pertains to all program changes whether through readmission or the curriculum change process.

TAKING AN ONLINE COURSE

In an online course, students connect with their teacher and classmates via the computer using the Internet. Course materials, tests, assignments, and discussions are delivered via the college's learning platform called ANGEL®. Students can virtual chat with their instructor, collaborate with other students, and participate in classroom discussions in their online courses. Online courses provide students with the flexibility and convenience of studying anytime, anywhere in an interactive and innovative learning environment.

COURSE EXPECTATIONS

SUNY Canton's online courses provide the same quality experience as our traditional campus-based courses and have the same credits and requirements as face-to-face courses. All of SUNY Canton's online courses and academic programs are designed to produce the same learning outcomes as traditional courses. To ensure quality, online courses undergo a vigorous course review process before they are offered online.

The majority of online classes are not self-paced and active online participation is often mandatory. Additionally, many online courses have extensive reading and writing demands.

REQUIREMENTS

Students in online courses are required to be more responsible for their learning. Strong time-management skills and study habits are essential in this learner-centered environment.

To participate in an online course, students need to have access to a working computer and

connection to the Internet. Broadband connection, such as Roadrunner or DSL, is preferred. Students should check the course syllabus for broadband requirements before registering for a course. Additional technical requirements include:

- Operating System (Windows 2000, XP, Vista, or Macintosh OS X)
- The latest browser available (Internet Explorer 7+, FireFox 2+)

LEARNER SUPPORT

SUNY Canton is dedicated to helping students achieve their educational goals by supporting and promoting initiatives that enhance student accessibility and academic excellence in online learning environments. SUNY Canton online students have access to the same advisement, registration, financial aid, library, academic and support services as on-campus students. Our library provides online tutorials on Internet research and links to databases and electronic journals. Academic Support and Accommodative Services offer tutoring, academic assistance, and various resources

and materials online. Learner resources and support services are available online through the www.canton.edu website.

On a technical level, SUNY Canton's Information Services offers on-going technical support to students during normal institutional working hours for hardware, software, and course management issues through their Help Desk at helpdesk@canton.edu. Additional technical support is provided through the SUNY Learning Network's (SLN) Help Desk at helpdesk@sln.suny.edu. UCanWeb provides access to various student services such as financial aid, registration, course schedules, grades, and unofficial transcripts.

ACCREDITATION

SUNY Canton is approved to offer distance learning through the Middle States Commission on Higher Education (MSCHE). Some programs are SUNY and SED approved to be offered online. See individual academic programs for more information.



Academic Support Services

Academic support services enhance the educational opportunities for all students at SUNY Canton. For complete descriptions and current contact information, go to www.canton.edu/academic_support_services. All academic support services are free of charge to SUNY Canton students.

PLACEMENT TESTING

SUNY Canton requires all new matriculated students to take the Accuplacer placement exam unless exempt as determined by standardized test scores. Transfer students must demonstrate a “C” or better in a college-level English course to be exempt.

Students required to test **will be notified** after acceptance. Accuplacer is administered over the internet. SUNY Canton offers both on-site and remote testing possibilities. For details and practice test items, go to www.canton.edu/placement_testing or call 315-386-7684.

DEVELOPMENTAL STUDIES

Developmental education courses allow students the opportunity to build competencies in reading, writing and mathematics that are essential to college success. Placement in these courses is based on test results, admissions referral and/or faculty referral. The developmental studies faculty works closely with students and their curriculum advisors to encourage growth in academic skills and the exploration of personal and vocational goals. Students are given the opportunity to demonstrate their potential for success in the academic environment.

TUTORING SERVICES

A Tutor Coordinator assesses requests for tutoring and outlines a plan with the student. This action plan may include time management counseling, peer/professional tutoring, referral to a Learning Lab and/or academic and study skills counseling.

SUNY Canton is committed to providing assistance to those who want help and are willing to take responsibility for their academic work.

EDUCATIONAL OPPORTUNITY PROGRAM

The Educational Opportunity Program (EOP) is committed to the recruitment, retention and graduation of students who normally would not be afforded the chance to pursue a college education. Students are admitted who meet specific academic and financial criteria and who demonstrate the potential for post-secondary success. EOP provides academic support services, personal counseling, tutoring and financial assistance.

STUDENT SUPPORT SERVICES PROGRAM

The Student Support Services (SSS) program is a federal TRIO program provid-

ing academic support services to a selected group of financially and academically eligible students and students with disabilities. The goal of the program is to retain participants and to have many continue their education toward a baccalaureate degree. SSS provides a variety of support services, including intensive assistance in core courses, study skills, time management, academic counseling, and transfer assistance.

THE MATH LAB

The Math Lab provides tutoring and academic support services to students enrolled in math courses, applied mathematics courses and technical courses. Professional and peer tutors provide assistance in all levels of mathematics ranging from basic math skills to calculus. The primary goals of the Math Lab are to reinforce concepts taught in the classes, to provide students with the opportunity to work collaboratively, and to teach students how to become independent learners.





THE WRITING CENTER

The Writing Center provides individual and group tutoring for all levels of English courses and writing intensive courses across the curriculum. The Center also provides assistance in textbook comprehension and general study skills. Professional tutors assist students in revising written work with the goal of teaching students to become competent and confident writers. Professional help is also available to work with students who are multi- and bi-lingual.

SCIENCE TUTORING AND LEARNING CENTER

The Science Tutoring and Learning Center (STLC) provides tutoring and academic support services to all students enrolled in science and applied science courses offered by the college. Staffed by professionals and peer tutors, the STLC offers individual and group tutoring plus test review sessions. The primary goals of the STLC are to reinforce concepts taught in the classes and laboratories and to teach students how to become independent learners.

SOUTHWORTH LIBRARY

Southworth Library, located at the center of campus, houses more than 50,000 books which support classroom instruction, as well as materials of general interest. The library currently subscribes to more than 250 periodicals, with back files consisting of more than 10,000 bound and unbound volumes of periodicals and approximately 5,000 reels of microfilm. The library's video collection consists of about 1,500, mostly course related, video recordings.

The professional librarians are available to assist patrons using the library resources and to locate relevant information. A full range of library services is provided and includes lending, reference and bibliographic assistance, bibliographic instruction, library tours, reserve and interlibrary loan. The library collection is accessed through an On-line Public Access Catalog (OPAC), named SLEUTH, through which collections of many other SUNY libraries can also be searched. SLEUTH can be searched inside as well as outside the library. The Library provides access to several electronic resources, which are available to both on and off-campus faculty, staff and students.

Southworth Library has cooperative arrangements with other libraries to supplement its resources. Membership in the Northern New York Library Network and SUNYConnect provide access to regional, state, and specialized resources. The library's participation in the On-Line Computer Library Center (OCLC) network, a bibliographic utility, provides access to other OCLC member libraries in the United States as well as worldwide.

ACCOMMODATIVE SERVICES

The Office of Accommodative Services has been established to ensure that students who are entitled to assistance receive the necessary accommodations to make a smooth transition to, and participate fully in, college life.

SUNY Canton is committed to making reasonable adjustments to provide equal opportunity for qualified students with disabilities in accordance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. The college community endeavors to make certain that an otherwise qualified individual with a disability will not, on the basis of that disability, be denied full and equal access to and enjoyment of academic and co-curricular programs or activities, or be otherwise subjected to discrimination under programs or activities offered by the College.

The Office of Accommodative Services affords academic accommodations for all qualified students who have documented learning, physical and/or mental health disabilities. It is the responsibility of the student to identify her/himself as having a disability, and to submit complete and credible documentation of the disability and the need for accommodations. In addition, a student must register with the Office of Accommodative Services in order to request and receive academic accommodations. Accommodations will be determined on an individual basis. The Office of Accommodative Services will assist students requesting non-academic auxiliary aids or services in locating the appropriate campus offices to address the requests. Personal care needs are the responsibility of the student.

For additional information regarding Accommodative Services and our documentation guidelines, please call (315) 386-7392 or visit us at www.canton.edu/accommodative_services/

The educational experience at SUNY Canton consists of both academic efforts in the classroom and developmental opportunities through programs offered by the Division of Student Affairs. Overall, the Division is concerned with the quality of life of each student and provides programs and services which . . .

- Promote student development by encouraging positive and realistic self-appraisal, intellectual development, physical fitness, the capacity to appreciate cultural and aesthetic differences, the capacity to work independently and interdependently, and to make appropriate personal and occupational choices;
- Assist students in overcoming personal, physical or educational problems;
- Identify environmental conditions that may negatively influence welfare of students and take steps to overcome such conditions.

The Student Affairs staff has a major responsibility for the quality of student life on the Canton campus. The staff works closely with students through the services available in the Athletics, Counseling, Health Services, Intramural Sports, Diversity, University Police, Fitness Center, Student Activities, and Residence Life Offices. Professionals on the Student Affairs staff are responsible for the overall coordination and development of the out-of-class activities/needs of SUNY Canton students.

NEW STUDENT ORIENTATION PROGRAMS

The College recognizes the social and academic adjustments which must occur for entering college students to be successful. To enable new students to move with ease and confidence from the home/high school, SUNY Canton provides an orientation program as a total campus endeavor. All new students are expected to participate in orientation. During orientation, students

get a taste of campus life, a sense of academic expectations and a tentative class schedule for the entering semester.

COUNSELING CENTER

The Counseling Center supports the mission of SUNY Canton and the Division of Student Affairs by contributing to the improvement of both mind and character of our students. By responding to the personal and psychological needs of the student body, we strive to support their independence and emotional well-being, assisting them in negotiating the complexities of college and successfully preparing them to meet the challenges of the future.

The Counseling Center provides professional and confidential counseling services to assist students in achieving their personal and academic goals through consultation with organizations, faculty, staff and administrators. Collaboration with departments on and off campus contributes to accurate response, assessment, and/or referral.

The Counseling Center provides individual and group counseling, crisis intervention, outreach, educational presentations, and leadership training. The Center is dedicated to maintaining an open atmosphere on campus, honoring the numerous social and cultural contexts represented by our students.

The Counseling Center plays an integral role in promoting a safe and positive environment which values the unique contribution of all individuals and establishes a foundation conducive to learning and developing a healthy lifestyle.

RESIDENCE LIFE

RESIDENCE HALLS

At SUNY Canton, we consider on-campus living an important part of your education—in fact, it's an education in itself. Living in one of Canton's four residence halls means that your life here will

include far more than classroom and lab work... it means that SUNY Canton will be your home for 9 out of 12 months for the next two years.

Canton's four halls—Heritage, Mohawk, Rushton, Smith—are located along the Grasse River near classroom buildings, the library, the gym, other recreational facilities, and Chaney Dining Center. It is about a ten minute walk over the footbridge to downtown Canton. The residence halls provide you with a living environment that is clean, safe, and pleasant at an affordable price. Each hall has three wings of students' rooms clustered around a central building. All of our life-style options are centered in a wing, floor, or building.

Rooms are attractively furnished with beds, desks, chairs, dressers, mirrors, floor lamps, blinds, and large closets. Cable TV is also provided. Three rooms are clustered around an adjoining bath. While we provide the basics, you may desire to add a touch of home with such items as rugs, posters, desk lamps or plants. Each wing has a balcony lounge for group meetings, study sessions, or just hanging out. Buildings also have a formal main lounge and recreational room equipped with TV and game tables.

LIVE ON CAMPUS?

SUNY Canton provides students with a pleasant affordable residential experience that assists you in getting the most out of College. Have you thought about why you should live on campus? Here are some of the advantages:

CONVENIENT:

Living five minutes from your classes, computer lab, library, gym, or fitness center can't be beat in the heart of winter. Having your food prepared for you, your parking lot plowed, your heat, electricity, cable paid for, and your friends just down the hall, all make your college experience more comfortable. No more getting up at 5:30 a.m. to clean the snow off your car so you can make the commute for your 8:00 a.m. class.

INTERNET ACCESS:

Recognizing the role that the Internet plays in the educational and social lives of college students, the Residence Life Office undertook the challenge to bring Road Runner high-speed Internet access to all students residing in our four residence halls. With Road Runner, our students do not have to worry about a modem tying up their phone line or slow download speeds. Additionally, many other areas on campus have wireless Internet access—all you need to bring with you to utilize this service is your wireless Internet card for your laptop computer! As long as the Internet is a valuable resource, we will continue our ground breaking mission to provide students with the best opportunity for success on today's fast-paced technological society.

IT'S WHERE THE ACTION IS:

When you talk to friends who have gone to college, they first think back to the fun they had in the Residence Halls. From the pizza parties, the intramural champion teams, the late night study groups, the floor trips and activities, to the lifelong friends that you will make, the residential experience is a must.

SAFE:

Your personal safety on campus is a priority for us. Our campus is well lit, patrolled and secure with electronic front door access systems, room combinations, and blue light system. This allows you to spend more time doing the things that are important to you, right here on campus. This means no driving home after a long day of classes and studying and affords you one of the best opportunities to pursue your education.

LIFE-STYLE OPTIONS

Numerous life-style options have been developed to assist you in finding just the right match for your "home-away-from-home." They are:

All-Female Wing – This wing will be reserved for female students only.

Non-Themed Housing – These rooms are in coed wings and do not have a centralized theme. These rooms are suited best for students who are not interested in living in theme housing, but are looking for a more traditional-styled college living experience.

Intensive Quiet Atmosphere – A coed wing featuring alternating male/female rooms with single-sex bathrooms. Students in this wing will not be permitted to have stereo speakers or use computer speakers and are permitted only headphones for music listening purposes. Quiet hours are continually in effect, with a break from 4-8 pm daily. Students are asked to keep their doors closed when watching television so as not to disturb others.

Community Wing – These two floors are designated for students who wish to live in an atmosphere that encourages "independent living." Students who live in this wing will have no direct supervision from professional staff members, but will have a self-governing body that will develop rules and regulations for the wing (within college, local and state laws/regulations). This living option is not open to freshman students, but is encouraged for students who are 21 years of age or older or who have lived on campus at SUNY Canton for three semesters or more.

Suites – Private, apartment-like living with a living room, bathroom and two bedrooms. Four students share these suites at an additional cost per semester and will have to care for their own bathrooms. Suite space is very limited.

Rooms with Enclosed Bath – These rooms will offer students additional privacy with external doors on the hallway, giving the students a shared, private bathroom (three rooms will share a bathroom). Students living in these rooms will have to care for their own bathrooms. These are NOT single rooms.

Vacation Housing – This wing is designed primarily for international students who are unable to travel home on the college-sanctioned breaks where the residence halls are closed, but may be open to other students as well who require housing when the residence halls are closed. Students will pay an additional cost of \$140 per week for each break they need to stay on campus and need to confirm with their Residence Hall Director that they are approved to stay for each break. Students requiring to stay for breaks where the residence halls are closed must select to live in this housing option, as other residence halls are closed during these times.

Go Green! Environmental Awareness

Floor – This floor is designed for students who want to congregate with fellow students interested in environmental issues in both the campus community and world-wide. Students on this floor will become involved in efforts to make SUNY Canton and the Canton area a more "green" environment and will work on a project during the semester with the other residents of the floor. The project is a requirement to live on this floor.

Grasse River Community – This housing option is designed for students who enjoy sharing their living space with animals. It is not a requirement that a student possess an animal to live on this floor, however, students who have allergies to any kind of animal are strongly discouraged from living in this area due to the various animals that live on these floors. Residents are permitted to bring small, caged pets from home with the prior approval of the Residence Hall Director. We're sorry, but at this time we do not permit dogs (of any size), birds or snakes in this living environment. You will be notified during the summer months if you are approved to live in this housing option. This wing is also designated as Alcohol Free.

Substance-Free Floor – Living facilities

are provided which have a total ban on alcohol use. Every effort will be made to provide an alcohol-free environment for those students who request it. In this area, students who are over 21 years of age will not be allowed to possess alcohol.

All rooms are attractively furnished, costing you less than the average apartment per month. They come with standard room furniture and are wired for 76 cable channels. For the double room rate per semester, the price can't be beat. It is the policy of the State University of New York that all residence halls are smoke free. No smoking will be permitted in any residence hall.

MANDATORY HOUSING POLICY

Every student in full-time attendance at SUNY Canton, other than married students, single parents, students residing with parent or guardian, or living in college-approved Greek housing are required to live on-campus, or be released from that requirement by the Director of Residence Life. Any student who is officially enrolled in a bachelor's degree program and is in their junior or senior year can be released. In addition, all students who live on-campus in college housing must contract one of the available meal plans with the College Association.

How Do I Sign Up?

To apply for a residence hall room, all you need to do is return the housing application with your life-style and roommate preferences and the appropriate deposit. You can also apply online through your UCan-Web account. If you have any questions or need a housing application, feel free to call us at (315) 386-7513, e-mail us at reslife@canton.edu, or visit us at: www.canton.edu.

INFORMATION SERVICES

Information Services are available to every student attending the College. Modern computer facilities, located around campus, provide all students with the opportunity

for virtually unlimited use of computers. All public computer labs use Microsoft Windows-based computers connected to printers and the Internet via the campus Local Area Network (LAN).

SUNY Canton participates in the Microsoft Campus Licensing Agreement. All students have access to standard software packages including word processing, spreadsheet, presentation and graphics packages, library databases, and the Internet. Many additional software packages, some for specific classes and others for general use, are available. The campus offers several open access computer labs to all SUNY Canton students, faculty, and staff. Additional assistance is available at the Help Desk. Each student receives an e-mail account and has full access to the Internet from any public computer. High speed Internet is available in each room of the residence halls.

The campus strongly supports distance learning opportunities for students. Many instructors make use of Internet-based instructional materials and testing, and some courses are taught entirely online.

TELEPHONES

All residence hall rooms are furnished with a modular jack. Calls may be received and on-campus calls may be made at any time. Those students who wish to make long distance calls may do so by obtaining a Personal Identification Number (PIN). This will allow the student access to the college network of lines for calling at discounted rates.

HEALTH SERVICES

As a health care team, the Davis Student Health Center is dedicated to providing professional medical care, educational programming and services to meet the well being of a diverse student population. Staffed by a physician, nurse practitioners, and support staff, the Davis Health Center promotes healthy life style choices as well as cares for

students with acute illnesses. The College also draws upon medical specialists from the area for consultation when necessary. Laboratory and x-ray facilities are available in Canton as well as at the hospitals in Potsdam and Ogdensburg.

All students enrolled in six or more credit hours must complete the SUNY Canton Health History and Immunization form found in the College admission packet and submit it to the Davis Health Center prior to the first day of classes. All athletes, international students and students in Nursing, Physical Therapist Assistant, Early Childhood Education and Dental Hygiene curriculums must complete the physical exam section. The physical exam section is optional for other students. Any student who is taking all online courses and living on campus does have to submit health records.

IMMUNIZATIONS

New York State Public Health Law 2165 requires students attending colleges and universities to demonstrate proof of immunization against measles, mumps and rubella (MMR). All students (six or more credit hours) at SUNY Canton will be required to show written proof of MMR immunity to the Davis Health Center prior to the first day of classes. **Exemptions** to this requirement are:

- Students born before January 1, 1957;
- Students who hold genuine and sincere religious beliefs which are contrary to immunizations;
- Students for whom immunization would be physically detrimental or otherwise medically contraindicated;
- Students taking all classes online and not living on campus;
- Students who are part-time taking less than six credit hours.

New York State Public Health Law (NYS PHL) 2167 requires institutions, includ-

ing colleges and universities, to distribute information about meningococcal disease and vaccination to all students attending college six or more credit hours. The law also requires that these students, whether they live on or off campus, acknowledge in writing that they have either:

—A record of meningococcal meningitis immunization within the past ten years;
OR

—An acknowledgement of meningococcal disease risks and refusal of meningococcal meningitis immunization signed by the student or student's parent or guardian if under age 18.

Failure to comply with either of these mandatory health requirements within 30 days from the start of classes will result in suspension from college. All of the health requirements can be found in the College's Health History and Physical Exam form in the Admission packet or online at the Health Center's web page.

INSURANCE

The College does not insure students against medical expenses which may result from an illness or accident while pursuing their activities at the College. Full-time students are mandated to have medical insurance, either under a policy held by the individual or parent, or through a health and accident policy available at a low cost through the College.

All international students are required to purchase SUNY Medical Insurance for International Students.

OFFICE OF DIVERSITY AFFAIRS

The Office of Diversity Affairs operates in unison with the college by providing students quality cross-cultural programs, needed services, and engaging leadership development opportunities.

OUR GOALS:

- Identify the needs of students from under-represented ethnic and social groups.
- Provide counsel for students from under-represented ethnic and social groups regarding personal, academic, and social concerns.
- Identify, promote, and provide educational cross-cultural awareness programs.
- Identify, promote, advise, and provide leadership programming for students from under-represented ethnic and social groups.
- Provide or refer students to receive appropriate advocacy.

The services and programs available through our office and through networked referrals include:

- Programs/ Events/ Speakers
- Sensitivity Training
- Student Leadership Development
- Mediation between Individuals/ Groups
- Classroom Presentations
- Provide Resources Regarding Culturally Diverse Issues
- Personal Counseling
- Mentoring/ Tutoring/ Advising
- Advocacy

CAREER COACHING, EMPLOYMENT AND CONTINUING EDUCATION

The Career Services Office is a dynamic office that students should visit long before they get ready to graduate and look for a job. While the Office does help students prepare their job search documents, and brings many employers right to the campus to interview students, the Office also provides coaching and resources to help make sure

they are on an academic/career path that is right for them.

Stop in to the office or log on to www.canton.edu/career, and check out the many resources available to students on topics like

- Job opportunities
- Internships
- Professional etiquette
- Starting a business
- Cover letters and resumes
- And more!

EMPLOYMENT

The Career Services Office coordinates one or two Career Fairs every year. Even if students are not ready to look for a job, a Career Fair is an excellent opportunity to talk to employers, get advice and make helpful connections.

When students are ready to graduate, Career Services can assist students in drafting resumes and cover letters, planning a job search and preparing for interviews. Students can even look for and apply to jobs listed specifically for SUNY Canton graduates on the Career Services recruiting website: Jobs4Roos.

Many employers come to campus to conduct on-site interviews. Below are a few of the companies for which SUNY Canton students have gone to work:

- Siemens Building Technologies
- BreconRidge
- New York State Police
- IBM
- Schneider Packaging Equip. Co.
- Schlumberger
- Novelis
- Canton-Potsdam Hospital
- IBEW
- Six Flags/Great Escape
- Champlain Valley Physicians Hospital

Recent graduates have taken jobs as far

away as Florida and Texas.

CONTINUING EDUCATION

SUNY Canton has created a number of 1-, 2- and 4-year programs that allow you to continue your education. If, however, you decide to follow an educational path not offered at SUNY Canton, the Career Services Office can help you find a school that will meet your career goals. From personal advising to online resources, we can help you identify the school that will best be able to build on your SUNY Canton education. Over the years, graduates have continued their educations at large and small institutions all over the United States.



RECREATION AND ATHLETICS

In 2007-2008, SUNY Canton began competing as a four-year athletic program. The college is a member of the National Association of Intercollegiate Athletics (NAIA) and competes in the Sunrise Conference in the following sports: men's and women's soccer, men's and women's cross country, men's and women's basketball, women's softball, and men's baseball. The Sunrise Conference consists of colleges in Maine, Vermont, Massachusetts and New York. As a member of the American Collegiate Hockey Association, the men's ice hockey program competes in the Eastern Collegiate Hockey League and plays a D1 schedule against other ACHA college teams in Pennsylvania, New York, New Jersey, Delaware, Massachusetts and New Hampshire.

Roughly 50,000 student-athletes participate in the NAIA at nearly 300 member colleges and universities throughout the United States and Canada. Along with conference championships, the NAIA sponsors 23 national championships in 13 sports. Over

150 colleges and universities participate in the ACHA which offers national championships and national player recognition in three divisions.

To be eligible to compete as a freshman in an NAIA sport, students must meet two of the following three eligibility requirements: overall 2.0 high school grade-point average on a 4.0 scale; graduate in the top half of their class; or score a minimum of 18 on the ACT or 860 on the SAT exam (math and critical reading only). Each team will hold tryouts and are open to all interested student-athletes. It is strongly encouraged that you contact the athletic department if you plan on trying out for a sport or if you would like more information. Information can also be retrieved from the athletic website (www.canton.edu/athletics).

In 2008-2009, men's and women's soccer played their first full seasons on the college's new lighted turf field and baseball played their first games on their brand new baseball field, and in 2010-2011 the Roos are expected to move into their new \$46 million athletic facility complete with a three-court field house, indoor baseball/softball practice capability with year-round drop-down bat-

ting cages, new 5,000 sq. ft. fitness center, lap pool, state-of-the-art athletic training room, dedicated team locker rooms and a dedicated study area for student-athletes with wireless computer access. Phase two of the project; a 1500-spectator ice rink is slated to be completed by the following fall.

If you don't want to compete for an intercollegiate team, SUNY Canton offers a wide variety of Intramural and Free Recreation programs. Whether you're looking for individual activities like a jog around the beautiful, on-campus cross-country trail or a workout at the Fitness Center, there is something for you.

The SUNY Canton Fitness Center is located in the downstairs level of Chaney Dining Center and is open to all students seven days a week. The Fitness Center contains a complete Cybex circuit, free weights, and racks and a variety of cardiovascular machines including treadmills, elliptical machines, steppers and bikes.

If you're looking for more of a competitive, structured recreational activity, the Intramural Department offers leagues in flag football, basketball, softball, volleyball, floor hockey, indoor soccer, badminton, and a

variety of other weekend tournaments and activities. Programs are subject to change throughout any given year.

CLUBS AND ACTIVITIES

The Richard W. Miller Campus Center is the focal point for extra-curricular and co-curricular activities for the college community. It is part of the educational program as well as the social life of the College. The Miller Campus Center and Office of Student Activities staff encourages students to participate in social, cultural, educational and recreational activities in order to enrich their out-of-class life, to benefit their personal growth and development, and to educate them for the wise use of leisure time.

The College sponsors many clubs and activities. Student groups are easy to organize. Some 50 clubs serve academic, professional and cultural interests, and all clubs welcome students from throughout the college.

Participation in student government comes through the Student Government Association, the College Union Board, and the Residence Hall Councils.

Students also publish their own online news service as well as the Paysonian yearbook. A sample of the clubs and activities:

- Women's Concerns
- Afro-Latin Society
- Newman Club
- Gospel Choir
- Greek Council
- Habitat for Humanity
- Karate Club
- Nursing Club
- Omega Alpha Club
(commuting students)
- Outing Club
- Phi Theta Kappa
(academic honor society)
- Paysonian Yearbook
- Auto Club

STUDENT GOVERNMENT ASSOCIATION

The Student Government Association is the governance voice of the students and provides a means of cooperation and unity among the students, faculty and administration.

The SGA is divided into three branches, the executive, legislative and judicial. The executive power is vested in a president, vice president, director of budget, secretary and CUB president. The Senate, the legislative branch, is made up of student representatives from each club/organization or appointed by the SGA President. The Judicial Board is responsible for interpreting the constitution and for hearing cases in accordance with the Code of Student Conduct.

COLLEGE UNION BOARD

The College Union Board is the major entertainment and activities group for the campus, and all enrolled students are invited to participate in CUB activities. The CUB is responsible for special weekends, films, coffeehouses, recreational tournaments, concerts, cultural, educational and social programs, and special events.

STUDENT JUDICIAL AFFAIRS

Most students find it relatively easy to adjust to the privileges and responsibilities of campus citizenship. For those students who find this process more difficult, the College provides such counsel as the student needs to gain insight and confidence in adjusting to college life. In some cases, when a student is unable or unwilling to assume his or her social responsibilities, it becomes necessary to impose disciplinary action.

The Code of Student Conduct is published yearly in the Canton *Student Handbook*, which can be viewed online at www.canton.edu/student_affairs/pdf/handbook.pdf. It is the obligation of all students to

familiarize themselves with the regulations printed in the handbook.

UNIVERSITY POLICE DEPARTMENT

The University Police Department is the law enforcement agency for the campus. The goal of the Department is to work with the campus community in an effort to create a safe environment. Keeping in mind the specialized needs of a college campus, the University Police take an active role in the educational process; its educational, informational and awareness programs strive to enlist the assistance and cooperation of all members of the academic community in the promotion of practical and responsible community safety. The Department takes pride in its service-oriented approach which reflects a high degree of sensitivity toward the campus environment, student issues and campus community concerns.

The University Police Department is located on the south side of the campus next to the Cooper Service Building. The Department is open 24 hours, seven days a week and can be reached by dialing 7777 from any campus phone or (315) 386-7777 from a non-campus phone. Among the services provided are:

- Vehicle registration, firearms registration and storage;
- Loan of motorist aids such as jumper cables, gas, vehicle unlocks;
- A Crime Prevention Office providing free bicycle registration and personal property registration using Operation Identification;
- The campus lost and found department.

Students are permitted to have motor vehicles on-campus, provided all such motor vehicles are registered with the University Police Department, and the vehicle registration fee has been paid. Motor vehicle registration can be accomplished at the Student

Service Center between 8:30 a.m. and 4:00 p.m., Monday through Friday. Students are required to abide by all parking regulations. A copy of the regulations is issued at the time of vehicle registration.

Temporary registrations may be obtained at the University Police Department or at the Student Service Center in French Hall.

CAMPUS SECURITY ACT

SUNY Canton crime statistics filed with the United States Department of Education can be located in the Jeanne Clery Act at http://www.canton.edu/clery_act. The Advisory Committee on Campus Security will provide upon request all campus crime statistics as reported to the United States Department of Education. You can obtain a copy of these statistics by contacting the University Police Department at 315-386-7777. The United States Department of Education website is: <http://ope.ed.gov/security/index.asp>.

THE COLLEGE ASSOCIATION

The College Association, Inc. is a not-for-profit educational corporation whose purpose is to operate, manage, and promote services to the entire campus community in conjunction with the goals of SUNY Canton. The core services that the College Association currently provide are dining, vending, retail operations, and laundry facilities. The College Association provides SUNY Canton ID's for all students, faculty, and staff. It also provides accounting and banking services for the Student Government Association as well as the College Foundation. The College Association Board of Directors consists of four faculty members (selected by the Faculty Senate), three administrators (appointed by the Campus President) and four students (selected by the Student Government Association). The Board of Directors approves policies and provides oversight to management activities.

CAMPUS MINISTRY OFFICE

The Campus Ministry Office, staffed by local volunteer clergy, strives to minister to the campus community (students, faculty, administration and staff) by creating a physical, personal and spiritual presence within a caring environment. It stimulates and fosters spiritual development and growth by tending to the emotional, physical and intellectual well being of each person within the campus community. The office provides opportunities for worship, outreach, mentoring and spiritual guidance in collaboration with other campus committees.

- Interfaith prayer services
- Connects with the local churches, temples, mosques and synagogues
- Advisors for faith-based student clubs
- Service projects (i.e., community service, Fall "Make a Difference Day," Spring "Clean-Up, Fix-Up Day," Adopt-A-Neighbor, Earth Day activities and Blessing of Animals)
- Confidential spiritual guidance
- Educational programs
- Recreational and social events
- Provide resource contacts and/or assistance for those with critical needs.

A Spiritual Life Committee, composed of members of the campus community, serves as both an advisory board to the Campus Ministry Office and as the programming arm of the Office.

CHURCHES

Canton students are welcomed to services at the many churches in the area. In Canton, there are various Christian churches of both Roman Catholic and Protestant denominations. In the nearby vicinity, there are Jewish synagogues and a mosque. For a list of individual denominations/churches, please see the Campus Ministry webpage, www.canton.edu/campus_ministry/.

STUDENTS UNABLE BECAUSE OF RELIGIOUS BELIEFS TO ATTEND CLASSES ON CERTAIN DAYS

*(As required by Section 224-A
New York Education Law)*

1. No person shall be expelled from or be refused admission as a student to an institution of higher education for the reason that he is unable, because of his religious beliefs, to attend classes or to participate in any examination, study or work requirements on a particular day or days.
2. Any student in an institution of higher education who is unable, because of his religious beliefs, to attend classes on a particular day or days shall, because of such absence on the particular day or days, be excused from any examination or any study or work requirements.
3. It shall be the responsibility of the faculty and of the administrative officials of each institution of higher education to make available to each student who is absent from school, because of his religious beliefs, an equivalent opportunity to make up any examination, study or work requirements which he may have missed because of such absence on any particular day or days. No fees of any kind shall be charged by the institution for making available to the said student such equivalent opportunity.
4. If classes, examinations, study or work requirements are held on Friday after four o'clock post meridian or on Saturday, similar or makeup classes, examinations, study or work requirements shall be made available on other days, where it is possible and practicable to do so. No special fees shall be charged to the student for these classes, examinations, study or work requirements held on other days.
5. In effectuating the provision of this sec-

tion, it shall be the duty of the faculty and of the administrative officials of each institution of higher education to exercise the fullest measure of good faith. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section.

6. Any student, who is aggrieved by the alleged failure of any faculty or administrative officials to comply in good faith with the provisions of this section, shall be entitled to maintain an action or proceeding in the supreme court of the county in which such institution of higher education is located for the enforcement of his rights under this section.
7. As used in this section, the term "institution of higher education" shall mean schools under the control of the board of trustees of the State University of New York or of the Board of Higher Education of the City of New York or any community college.

FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT OF 1974

The Family Educational Rights and Privacy Act permits current or former students to inspect and review their educational records. Students wishing to review their records should complete the request form available in the Registrar's Office identifying the record(s) they want to inspect. The Registrar will make arrangements for access within 45 days of the request and notify the student of the time and place where the records may be inspected. If the records are not maintained by the Registrar, the student will be advised to whom the request should be addressed.

Students are also accorded a right to challenge the contents of their educational records to insure that the records are not in-

accurate, misleading or in violation of rights to privacy or other rights. In order to request the College to amend a record that he or she believes is inaccurate or misleading, a student should complete the request form available in the Registrar's Office, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

The Act also provides the right to withhold the release of personal information except as provided by law and College policy. SUNY Canton may disclose those items designated as directory information from a student's education record unless directed otherwise by the student in writing. SUNY Canton has designated directory information to include: student's full name, local address and telephone number, campus e-mail address, home address and home telephone number, date of birth, major field of study, dates of attendance, degrees and awards received, date(s) of graduation, participation in officially recognized sports and activities, and the most recent previous educational institution attended.

Students have the right to restrict the disclosure of the items designated as directory information. If students exercise this right, such information will not be released without their written consent except as provided by law and College policy. Non-directory information such as grades, GPA and Student ID number are not released for any student, except directly to the student, without express written consent. Students wishing to restrict the release of the items identified as directory information must notify the Office of the Registrar in writing

by the first Friday of the academic term in which the information is not to be disclosed. Such restriction will remain in effect unless rescinded in writing by the student. Students should be aware that restricting the release of directory information will prevent the College from providing enrollment and graduation information to prospective employers, insurance companies, and lenders without written authorization. It will also prevent inclusion in any news releases of the Dean's List or other honors, as well as graduation lists for publication.

An exception permitting disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit and personal health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or college agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks. A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

Inquiries or complaints may be filed with the Family Educational Rights and Privacy Act Office, Department of Health, Education and Welfare, 400 Maryland Avenue, S.W., Washington, D.C. 20202-4605.

Copies of the Family Educational Rights and Privacy Act are available at the Office of Student Affairs, Faculty Office Building 604, and the Office of the Registrar, French Hall 105.

Program Offerings

Enrollment in other than registered or otherwise approved programs may jeopardize a student's eligibility for certain student aid awards.

	PAGE	SUNY Code	HEGIS Code
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Alternative and Renewable Energy Systems, <i>B. Tech.</i>	51	1865	0925
Civil & Environmental Technology, <i>B. Tech.</i> ...	52	2235	0925
Criminal Investigation, <i>B. Tech.</i>	53	1359	2105
Criminal Justice: Law Enforcement Leadership, <i>B. Tech.</i> ..	54	1911	2105
Dental Hygiene, <i>B. Tech.</i>	55	0148	1213
Electrical Technology, <i>B. Tech.</i>	56	2234	0925
Emergency Management, <i>B. Tech.</i>	57	1864	0599
Finance, <i>BBA</i>	58	0282	0504
Funeral Services Administration, <i>B. Tech.</i>	59	1525	1202
Graphic and Multimedia Design, <i>B. Tech.</i>	60	2026	0605
Health Care Management, <i>B. Tech.</i>	61	0253	1202
Industrial Technology Management, <i>B. Tech.</i> ..	62	1935	0925
Information Technology, <i>B. Tech.</i>	63	2045	0799
Legal Studies, <i>B. Tech.</i>	64	0818	2199
Management, <i>BBA</i>	65	1645	0506
Nursing, <i>BS</i>	66	0291	1203.10
Sports Management, <i>BBA</i>	67	0182	0599
Veterinary Services Management, <i>B. Tech.</i>	68	1672	1202

ASSOCIATE DEGREES

Accounting, <i>AAS</i>	69	0630	5002
Air Conditioning Engineering Technology, <i>AAS</i>	70	0444	5317
Apprentice Training: Industrial Trades, <i>AAS</i> ..	71	0473	5301
Automotive Technology, <i>AAS</i>	72	0525	5306
Business Administration, <i>AAS, AS</i>	73	0632/0671	5004
Civil Engineering Technology, <i>AAS</i>	74	0517	5309
Computer Information Systems, <i>AAS</i>	75	0581	5101
Construction Technology: Management, <i>AAS</i> ..	76	1162	5317
Criminal Justice, <i>AAS</i>	77	0640	5505
Dental Hygiene, <i>AAS</i>	78	0545	5203
Early Childhood, <i>AS</i>	79	1327	5503
Electrical Engineering Technology, <i>AAS</i>	80	0699	5310
Engineering Science, <i>AS</i>	81	0530	5609
General Technology, <i>AAS</i>	82	2208	5301

	PAGE	SUNY Code	HEGIS Code
Individual Studies, <i>AAS</i>	83	0688	5699
Liberal Arts and Sciences: General Studies, <i>AA, AS</i>	84	0250	5649
Mechanical Engineering Technology, <i>AAS</i>	85	0493	5315
Nursing, <i>AAS</i>	86	0622	5208.10
Physical Therapist Assistant, <i>AAS</i>	87	0489	5219
Veterinary Science Technology, <i>AAS</i>	88	0521	5402

CERTIFICATE PROGRAMS

Air Conditioning Maintenance & Repair	89	1387	5317
Electrical Construction & Maintenance	90	0955	5317
Health Science Career Studies	91	1774	5299
Heating and Plumbing Service	92	1949	5317
Powersports Performance & Repairs.....	93	1632	5306
Practical Nursing.....	94	0938	5209.20

ACADEMIC MINORS

Accounting.....	95
Applied Physics	95
Economics.....	95
Management Information Systems	96
Mathematics.....	96
Women's Studies.....	96
Writing and Communications.....	96

OTHER PROGRAMS

Environmental Science & Forestry, 2+2 w/ <i>SUNY ESF, Syracuse</i>	98	0250/	various
Forest Technology, 1+1 w/ <i>SUNY ESF, Wanakena</i>	98	0620/	1086
Upstate Medical Univ. Early Admissions Program, <i>Joint admission w/SUNY Upstate Medical University at Syracuse</i>	98	0250	
Police Academy	97		
Telecommunications Technology: Verizon <i>Verizon Employees Only</i>	1179	5310	

Programs Not Accepting Students

Business Office Technology, *Certificate*

Alternative and Renewable Energy Systems—*B. Tech.*

The Alternative and Renewable Energy Systems (ARES) curriculum introduces students to alternative methods of energy production and principles of energy efficiency. This academic program is appropriate for students seeking careers related to the production and use of alternative energy systems. Fundamental topics such as thermodynamics, heat transfer, fluid mechanics, electricity, power generation, energy conversion and storage enable students to assess wind, solar and geothermal energy systems. Along with the technical course content, students also learn to apply project and financial management skills and address regulatory requirements. Graduates may work in technical support, systems design, sales and marketing, new product development, green energy production, or eventually consulting. Other employment opportunities exist with engineering, architectural and construction firms, particularly those incorporating green building technology.

STUDENTS IN THIS MAJOR:

- Will be able to formulate solutions to the needs of the public for alternative and renewable sources of energy.
- Can be effective project planners and managers of alternative and renewable energy projects.
- Are prepared to respond to the dynamic needs of the alternative energy market.
- Are able to communicate in an organized manner through technical reports in written, oral, and other formats appropriate to alternative and renewable energy issues.
- Develop skills to function in and lead team-based efforts.

CAREER OPPORTUNITIES:

The increasing desire for alternatives to fossil fuel drives the demand for graduates who are able to function and compete in this rapidly-expanding industry. Opportunities in this market include:

- Designer for an engineering firm
- Manufacturer representative
- Field manager for a contracting firm
- Contractor
- Sales representative

ADMISSION REQUIREMENTS:

Incoming students will meet all general admission requirements as freshmen to SUNY Canton, having completed the NYS Chemistry Regents Exam with 75 or above. Transfer students are evaluated individually by the program academic advisor. In addition, students must meet all requirements for Precalculus and Algebra, College Physics and College Chemistry.

PROGRAM REQUIREMENTS:

(Curriculum 1865)

Semester I	Credits
AREA 110 Intro. to Alternative Energy	3
ENGL 102 Oral and Written Expression	3
MATH 123 Pre-Calculus Algebra	4
PHYS 121 College Physics I ***	3
PHYS 125 Physics Lab I	1
CHEM 150 College Chemistry I	4
	<u>18</u>
Semester II	
ECON 103 Microeconomics	3
MATH 161 Calculus I	4
MECH 241 Fluid Mechanics	3
PHYS 122 College Physics II ***	3
PHYS 126 Physics Lab II	1
GER Elective	3
	<u>17</u>
Semester III	
MATH 162 Calculus II	4
ELEC 261 Electricity	4
ESCI 101 Intro. to Environmental Science	3

MECH 111 Computer Drafting	3
GER Elective	3
	<u>17</u>

Semester IV

ELEC 141 Industrial Controls	2
ENGS 102 Programming for Engineers	2
MATH 141 Statistics	3
MECH 225 Intro. to Thermodynamics	3
MECH 226 Thermo/Fluid Lab	1
GER Electives	6
	<u>17</u>

Semester V

AREA 320 Experimentation & Meas. Lab I	3
AREA Electives	6
BSAD 340 Management Communications	3
ELEC 215 Electrical Energy Conversion	4
	<u>16</u>

Semester VI

AREA 370 Experimentation & Meas. Lab II*	3
AREA Electives	6
ECON 320 Environmental Economics	3
SOET 370 Engineering Project Analysis	3
	<u>15</u>

Semester VII

AREA 420 Alt. Energy Design I	3
AREA Electives	6
ACHP 401 Building Automation Systems	3
SOET 361 Project Management	3
	<u>15</u>

Semester VIII

AREA 470 Alt. Energy Design II	3
AREA Elective	3
CONS 350 Geographic Information Systems	3
SOET 410 Engineering Technology Senior Seminar	3
Program Elective	3
	<u>15</u>

* Fulfills writing intensive requirement.

** Students prepared to take MATH 161 or higher may substitute a liberal arts course.

*** Students prepared to take MATH 161 or higher upon entry may choose PHYS131/132 University Physics I and II.

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

NOTE: Alternative and Renewable Energy Systems students must meet seven of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Civil & Environmental Technology—B. Tech.

The Civil & Environmental Technology (C&ET) curriculum provides students with a Bachelor of Technology (BTech) degree that meets the demands of today's industry. The C&ET BTech program provides graduates with the background necessary to be competitive and successful with their career. Graduates will also have the opportunity to pursue graduate study. Students gain preparation in general engineering technology concepts as well as specialized training in civil and environmental technology. This four-year curriculum provides flexibility with program electives for students to pursue areas of specific interest.

Hands-on experience and training prepare graduates for challenges encountered in the construction and environmental industry, including analysis, design, project and resource management, structures, geotechnology, environmental concerns, and common laboratory testing of materials.

STUDENTS IN THIS MAJOR:

- Are prepared for careers in the civil, environmental and construction industries.
- Develop CADD skills.
- Learn to do structural analysis and design.
- Learn surveying.
- Learn assess and remediate environmental contamination.
- Perform construction material laboratory tests.
- Practice professional communication.
- Work on and lead team efforts.

CAREER OPPORTUNITIES:

Employment opportunities span the range of industry and commerce. Opportunities include:

- Structural/Environmental/Construction Engineering and Technology
- Engineering Assistant
- Structural Design and Detailers
- Assistant Project Manager/Engineer/Environmental Engineer
- Surveyor
- Environmental Technologist

- QC Engineering Technologist
- Groundwater Engineer
- Municipal Water/Wastewater Treatment Plant Operator
- Geotechnical Engineer
- Construction Project Estimator
- Construction Inspectors
- Residential & Commercial/General Contractors

CAREER OUTLOOK

- Employment opportunities for civil and environmental engineering technicians are expected to increase by 78% and 10%, through 2016 due to the growth and repair of infrastructure (highways, bridges, dams, etc).
- Employment in environmental technology is expanding because of the increased awareness of environmental issues, and more stringent regulations.

ADMISSION REQUIREMENTS:

- Freshmen will meet all general admission requirements to SUNY Canton.
- Students should have completed four years regents level high school math and be ready for Pre-Calculus (MATH 123) and College Physics I (PHYS 121/125). Students not meeting these criteria will be required to take prerequisite math courses.
- Students with a two-year college degree in a related program area will be evaluated and awarded maximum credit. They must have a minimum grade point average of 2.75. Other transfer students will be evaluated on case-by-case basis.

PROGRAM REQUIREMENTS: (Curriculum 2235)

First Semester	Credit
ENGS 101 Intro to Engineering.....	2
MECH 111 Computer Drafting	3
MATH 123 PreCalculus	4
PHYS 121 College Physics I.....	3
PHYS 125 *Physics Lab I.....	1
ENGL 102 Oral and Written Expression	3
	16

Second Semester

CONS 172 Technical Statics	3
ENGS 102 Programming for Engineers.....	2
MECH 128 Electromechanics.....	3
MATH 161 Calculus I	4
PHYS 122 College Physics II	3
PHYS 126 College Physics II Lab	1
	16

Third Semester

CONS 101 Elementary Surveying.....	4
CONS 272 Strength of Materials for Tech.....	3
CHEM 150 College Chemistry and Lab	4
MATH 162 Calculus II.....	4
	15

Fourth Semester

CONS 122 Hydraulics	4
CONS 220 Engineering Materials.....	3
CONS 236 Structural Analysis I.....	3
CONS 285 Engineering Geology	4
MATH 264 Differential Equations.....	3
	17

Fifth Semester

CONS 203 Advanced Surveying	4
CONS 280 Civil Engineering Materials	2
CONS 385 Hydrology and Hydrogeology.....	4
CONS 386 Water Quality.....	4
Program Elective **	3
	17

Sixth Semester

CONS 387 Water and Wastewater Treatment.....	3
SOET 361 Project Management.....	3
SOET 370 Engineering Project Analysis.....	3
Program Elective **	6
	15

Seventh Semester

CONS 314 Soil Mechanics *	3
SOET 377 Engineering Technology Issues.....	1
General Elective (3,4,5,6,7,8 or 9)	9
Program Elective **	3
	16

Eighth Semester

CONS 477 Capstone Project	3
SOET 348 Engineering Safety	1
General Elective (3,4,5,6,7,8 or 9)	6
Program Elective **	6
	16

* Fulfills writing intensive requirement.

** Must be from approved list of program electives for the CET program or permission of program coordinator. One program elective must be in Structural Steel Design (CONS 324), Reinforced Concrete Design (CONS 304), or Structural Engineering Design (CONS 375).

GER = General Education Requirement

NOTE: Civil & Environmental Technology students must meet eight of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Criminal Investigation—B. Tech.

The Bachelor of Technology in Criminal Investigation provides a unique alternative to traditional criminal justice programs. This degree focuses on developing the necessary knowledge and skills required in criminal investigations. Students will complete an internship with a major law enforcement agency or a senior thesis.

STUDENTS IN THIS MAJOR:

- Receive advanced training in criminal investigation.
- Learn to analyze forensic evidence, preserve crime scenes, collect and process evidence.
- Spend an entire semester with selected criminal investigation units or complete five upper level criminal justice courses.

CAREER OPPORTUNITIES:

- Criminal investigation officer for police departments
- Federal law enforcement agencies
- Private investigation agencies
- Military police

ADMISSION REQUIREMENTS:

Admission to the Bachelor of Technology in Criminal Investigation is competitive.

- Students must be prepared to take College Algebra (MATH 121)
- Students must have a high school average of at least 80.
- Students must be prepared to take ENGL 101 or ENGL 102.
- Transfer students must have a minimum cumulative grade point average of 2.5.

Recommended preparatory courses or their equivalencies are:

JUST 101	Introduction to Criminal Justice
JUST 110	Criminal Law
JUST 111	Criminal Procedure
JUST 203	Criminal Investigations
JUST 209	Law Enforcement Communications
JUST 210	Introduction to Forensic Investigation
MATH 111	Survey of Mathematics OR
MATH 121	College Algebra

- Admission priority will go to SUNY Canton Criminal Justice students. A minimum grade point average of 2.5 is required.

PROGRAM REQUIREMENTS:

(Curriculum 1359)

Semester I	Credits
JUST 101	Intro. to Criminal Justice3
ENGL 101	Expository Writing OR
ENGL 102	Oral and Written Expression3
MATH 111	Survey of Mathematics3
PSYC 101	Introductory Psychology.....3
CITA 110	Intro. to Information Technology3
	<u>15-16</u>

Semester II	Credits
JUST 105	Correctional Philosophy3
JUST 110	Criminal Law3
SOCI 101	Introduction to Sociology.....3
	Natural Science w/Lab (GER 2) ... 3-4
	Humanities Elective (GER 7)3
	<u>15-16</u>

Semester III	Credits
JUST 111	Criminal Procedure3
JUST 201	Critical Issues in Crim. Justice*3
JUST 209	Law Enforc. Communications.....3
JUST 210	Intro. to Forensic Inv.3
	American History Elective (GER 4) ..3
	<u>15</u>

Semester IV	Credits
JUST 203	Criminal Investigations.....3
JUST 207	Police Services.....3
	General Electives9
	<u>15</u>

Semester V

JUST 300	Forensic Photography3
JUST 303	Interviews and Interrogations3
	U/L Liberal Arts Elective3
	Liberal Arts Elective
	(GER 5, 6, 8, or 9)3
	General Elective.....3
	<u>15</u>

Semester VI

JUST 301	Latent Prints and Impressions.....3
JUST 319	Professional Ethics3
JUST 310	Causes of Crime OR
**	Threats to Homeland Security OR
JUST 350	Family Victimization3
	U/L Liberal Arts Elective3
	General Elective.....3
	<u>15</u>

Semester VII

JUST 406	Crime Scene Investigation3
JUST 408	The Investigation of Death3
JUST 429	Intro. to Culminating Experience1
	U/L Crim. Investigation Elective3
	General Electives6
	<u>16</u>

Semester VIII

JUST 430	Culminating Experience in
	Criminal Justice OR
	(5) U/L JUST Electives15
	<u>15</u>

Students in the Criminal Investigation, B.Tech. program are required to earn a C or better in all JUST courses taken for credit in the program.

* Fulfills writing intensive requirement.

** = Course under development

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

NOTE: Criminal Investigation students must meet seven of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Criminal Justice: Law Enforcement Leadership—*B. Tech.*

The Law Enforcement Leadership program blends the disciplines of criminal justice, law enforcement and management. It provides the foundation to allow graduates to seek entry positions in law enforcement or to seek promotion into supervisory and management positions. Most graduates of this program will seek employment with law enforcement agencies, other governmental agencies or in the private sector. Since the program provides ample opportunities for electives, students may choose electives that may help them to develop or hone management skills, or acquire knowledge and skill in law enforcement techniques.

STUDENTS IN THIS MAJOR:

- Develop leadership and managerial skills to succeed in law enforcement agencies
- Analyze critical issues in law enforcement
- Study under the tutelage of experienced law enforcement professionals
- Are exposed to current issues and state-of-the-art technology
- Culminate their education with a semester-long internship or additional course work

CAREER OPPORTUNITIES:

- Law enforcement officers at local, state and federal level
- Law enforcement management for local, state, and federal agencies
- Sheriffs and Probation offices
- Security consultants
- College and university campuses

CAREER OUTLOOK:

- Jobs for graduates in law enforcement are projected to increase by 24.7% through 2012 according to the U.S. Department of Labor Bureau of Labor Statistics.
- Higher education requirements for entry level employees of law enforcement agencies at all levels are becoming more common.

ADMISSION REQUIREMENTS:

- Students must be prepared to take College Algebra (MATH 121)
- Students must be prepared to take Oral and Written Expression (ENGL102).
- Transfer students must meet re-registration requirements to be considered for admission.

PROGRAM REQUIREMENTS

(Curriculum 1911)

Semester I	Credits
JUST 101 Introduction to Criminal Justice.....	3
BSAD 100 Intro. to Business.....	3
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
PSYC 101 Introduction to Psychology.....	3
Mathematics Elective (GER 1)	3-4
	15-16

Semester II	Credits
JUST 110 Criminal Law	3
JUST 111 Criminal Procedure	3
SOCI 101 Introduction to Sociology	3
Amer. History Elective (GER 4)	3
Humanities Elective (GER 7)	3
	15

Semester III	Credits
CITA 110 Intro. to Information Technology	3
MATH 141 Statistics	3
Natural Science w/Lab Elective (GER 2)	3-4
Liberal Arts Elective (GER 5, 6, 8, or 9)	3
General Elective.....	3
	15-16

Semester IV	Credits
JUST 201 Critical Issues in Criminal Justice	3
JUST 207 Police Services.....	3

JUST 250 Civil Liability Issues for the Police Administrator	3
ECON 101 Macroeconomics OR	
ECON 103 Microeconomics OR	
POLS 101 Intro to Govt & Politics.....	3
Program Elective.....	3
	15

Semester V	Credits
JUST 320 Managing Law Enforce. Training.....	3
JUST 333 Managing Patrol Function	3
BSAD 301 Principles of Management	3
General Elective.....	3

SELECT ONE COURSE.....	3
JUST 310 The Causes of Crime	3
JUST 317 Police Tactical Seminar	3
JUST 334 Community Oriented Policing*..	3
JUST 345 Comparative Justice Systems.....	3
	15

Semester VI	Credits
BSAD 319 Professional Ethics	3
U/L BSAD, or JUST Elective	3
General Elective.....	3

SELECT TWO COURSES	6
JUST 310 The Causes of Crime	3
JUST 317 Police Tactical Seminar	3
JUST 334 Community Oriented Policing*..	3
JUST 345 Comparative Justice Systems.....	3
	15

Semester VII	Credits
JUST 429 Intro to Culminating Experience	1
JUST 449 Current Issues in Law Enforce.	3
JUST 335 CJ Agency Management	3
BSAD 375 Leadership & Decision Making.....	3
Liberal Arts Elective (GER 5, 6, 8, or 9)	3
General Elective	3
	16

Semester VIII	Credits
JUST 430 Culminating Experience in Criminal Justice AND/OR	
JUST 435 Senior Project AND/OR U/L BSAD or JUST Electives.....	3-15
	15

* One of the three courses selected in Semesters V and VI must be JUST 334 to fulfill the writing intensive requirement.

U/L = Upper Level course (300/400)

GER = General Education Requirement

NOTE: Criminal Justice: Law Enforcement Leadership students must meet eight of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Dental Hygiene—*B. Tech.*

The Bachelor of Technology in Dental Hygiene constitutes the final two years of a 2+2 articulation program in which the first two years entail completing an associate degree in Dental Hygiene from an accredited program. This degree provides graduates expanded career and graduate education opportunities in: administration, education, management, pharmaceutical sales, public health, sales and marketing and research.

STUDENTS IN THIS MAJOR:

- Have expanded career and graduate education opportunities.
- Will complete a one semester internship.

CAREER OPPORTUNITIES:

- Administration
- Education
- Management
- Pharmaceutical Sales
- Public Health
- Sales & Marketing
- Research

ADMISSION REQUIREMENTS:

- Students must be prepared to take College Algebra (MATH 121)
- Must have completed an associate degree in Dental Hygiene from an accredited program.

PROGRAM REQUIREMENTS:

(Curriculum 1148)

Semester V	Credits
DHYG 350 Current Issues in Periodontics.....	3
HSMB 304 U.S. Health Care System.....	3
EDUC 210 Principles of Education.....	3
MATH 111 Survey of Math.....	3
Foreign Language or ASL (GER 9)....	3
	<u>15</u>

Semester VI

DHYG 310 Contemporary Dental Hygiene Issues *	3
DHYG 340 Management Communications	3
HSMB 302 Legal & Ethical Issues in Health Care.....	3
EDUC 300 Pedagogy & Tech of Online Teaching.....	3
MATH 141 Statistics	3
	<u>15</u>

Semester VII

DHYG 360 Dental Hygiene Teaching Methodology	4
DHYG 370 Research Methods.....	3
DHYG 385 Orientation to Internship	1
HSMB 330 Grant Writing Strategies	2
ENGL 301 Professional Writing & Communication	3
U/L Liberal Arts Elective (GER 4, 5, 6, 7, or 8)	3
	<u>16</u>

Semester VIII

DHYG 390 Dental Hygiene Internship	6
HSMB 410 Senior Seminar	3
U/L Liberal Arts Elective (GER 4, 5, 6, 7, or 8)	6
	<u>15</u>

* *Fulfills writing intensive requirement.*

U/L = *Upper Level Courses (300/400)*

GER = *General Education Requirement*

NOTE: *Dental Hygiene students must meet seven out of ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.*

Electrical Technology—B. Tech.

The Bachelor of Electrical Technology (B. Tech) program is designed to prepare graduates to fulfill the rapidly changing technological demands in electrical power, electronics, industrial controls, and telecommunications. The program provides strength in mathematics, social sciences and humanities, and technical content that focus on the application of science and engineering related to product improvement, design, manufacturing, construction, and operational functions.

STUDENTS IN THIS MAJOR:

- Will demonstrate the mastery of the knowledge, techniques, skills, and modern tools in Electrical Technology.
- Will have the ability to apply current knowledge and adapt to emerging applications of mathematics, science, and engineering technology.
- Develop an ability to identify, design, analyze and solve technical problems.
- Develop an ability to communicate effectively.
- Learn to recognize the need for, and an ability to engage in lifelong learning.
- Learn the importance of professional, ethical and social responsibilities.
- Will demonstrate respect for diversity and knowledge of contemporary professional, societal and global issues.
- Will have a commitment to quality, timeliness, and continuous improvement.
- Have the opportunity to receive minor in Physics.

CAREER OPPORTUNITIES:

- Electronics Technologist
- Biomedical Engineering Technologist
- Sale Engineering Technologist
- Service Engineering Technologist
- Systems Test Engineering Technologist
- Systems Test Engineering Technologist
- Product Engineering Technologist
- Software Engineering Technologist
- Documentation Engineering Technolo-

gist

- Quality Control Engineering Technologist
- Applications Engineering Technologist
- R&D Technologist
- Engineering Assistant
- Graduate School

ADMISSION REQUIREMENTS

- Candidates must have a minimum of a high school diploma or GED.
- Students must be prepared to take Pre-Calculus Algebra (MATH 123). If a student does not meet the criteria, he/she will be required to take prerequisites in math. All students with high school diploma or GED will be required to take a placement examination to determine his/her standing.
- Students who graduate with a two year college degree in a program related area will be evaluated and awarded maximum credit to enable him/her to complete the (B. Tech) degree in two years. Transfer students from community colleges, universities or other institutions of higher learning with some coursework completed will be evaluated on case-by-case basis. Minimum grades of "C" for transfer provided the content is comparable to that offered at SUNY Canton.

PROGRAM REQUIREMENTS:

(Curriculum 2234)

Semester I	Credits
ENGS 101 Introduction to Engineering	2
ENGL 102 Oral and Written Expression	3
MATH 123 Pre-Calculus Algebra	4
MECH 111 Computer Drafting	3
PHYS 121 College Physics I.....	3
PHYS 125 College Physics I Lab.....	1
	16
Semester II	
MECH 128 Electromechanical Technology.....	3
ENGS 102 Programming for Engineers.....	2
ELEC 101 Electric Circuits 1	3
ELEC 109 Electric Circuits 1 Laboratory.....	1
MATH 161 Calculus I	4
PHYS 122 College Physics II	3
PHYS 126 College Physics II Lab	1
	17

Semester III

ELEC 102	Electric Circuits 2.....	3
ELEC 129	Electric Circuits 2 Laboratory.....	1
ELEC 141	Industrial Controls	2
ELEC 165	Digital Systems.....	3
ELEC 166	Digital Systems Lab.....	1
MATH 162	Calculus II.....	4
	Elective (GER 3,4,5,6,7,8,9)	3
		17

Semester IV

ELEC 213	Microprocessors *	3
ELEC 215	Electrical Energy Conversion.....	4
ELEC 225	Telecommunications.....	3
ELEC 231	Electronic Circuits.....	4
	Program Elective.....	2
		16

Semester V

ELEC 243	Computer-Automated Controls OR	
ELEC 324	Advanced Automated Controls.....	2
ELEC 332	Industrial Power Electronics	3
ELEC 343	Advanced Circuit Analysis	3
SOET 377	Engineering Technology Issues.....	1
MATH 264	Differential Equations.....	3
	Elective (GER 3,4,5,6,7,8,9)	3
		15

Semester VI

ELEC 380	LAN/WAN Technology.....	3
ELEC 383	Power Transmission and	
	Distribution.....	3
ELEC 385	Electronic Communications I.....	3
SOET 348	Engineering Safety	1
	Program Elective.....	3
	Elective (GER 3,4,5,6,7,8,9)	3
		16

Semester VII

ELEC 386	Electronic Communications II	3
ELEC 416	Microelectronics Circuit Design	3
SOET 361	Project Management.....	3
	Program Elective.....	3
	Elective (GER 3,4,5,6,7,8,9)	3
		15

Semester VIII

ELEC 428	Capstone Project	3
ELEC 436	Biomedical Electronics.....	3
SOET 370	Engineering Project Analysis.....	3
	Program Elective.....	6
		15

* Fulfills writing intensive requirement

UL = Upper Level Courses (300/400)

GER = General Education Requirement

Program Electives: ELEC 375, ELEC 405, SOET 373, SOET 410, AREA 303, PHYS 301, 320, 330, 340, 343, 410, 420.

NOTE: Electrical Technology students must meet seven of ten General Education Requirements, 45 upper level credits, and successfully complete the SUNY Canton computer competency requirement.

—This is a new technology program; when it graduates its first class, application will be submitted to the Accreditation Board for Engineering and Technology (ABET) for accreditation of this program as an engineering technology program.

Emergency Management—*B. Tech.*

The Bachelor of Technology degree in Emergency Management focuses on the development and education of emergency managers and other administrative personnel with responsibilities in emergency management or the allied homeland security field of study. Students receive education in the mitigation of, preparedness for, response to, and recovery from natural or technological emergencies, disasters and catastrophes. Students complete virtual incident command and training exercise activities, and have the opportunity to develop significant research projects or internships with emergency and disaster management agencies.

STUDENTS IN THIS MAJOR:

- Learn about the four phases of emergency management: mitigation, preparedness, response, and recovery.
- Analyze past disasters and examine effectiveness of the current all-hazards approach to emergency management.
- Learn about natural and technological hazards, and develop hazard and vulnerability assessments.
- Study new and innovative methods for preparing communities and organizations to address the risk of emergencies, disasters, and catastrophes.
- Build leadership, communication, decision-making and problem solving skills through the development and completion of incident command system-based tabletop, functional and full-scale virtual exercises.
- Explore the major legal and liability issues in emergency management and their potential roles in rule-making and policy development.
- Acquire the skills necessary to develop, conduct and evaluate disaster exercises in highly-structured and applied, interactive educational simulations.

CAREER OPPORTUNITIES:

- County and city emergency and disaster management agencies
- Regional and state emergency management and homeland security departments and agencies
- Federal emergency management and homeland security agencies
- Emergency management departments within many Federal agencies
- Hospitals and public health agencies
- Private corporations and businesses, including nuclear power plants
- Criminal justice, firefighting and emergency service agencies

ADMISSION REQUIREMENTS:

- Students must be prepared to take Survey of Math (Math 111) or College Algebra (MATH 121)
- Students must be prepared to take Expository Writing (ENGL 101)
- Transfer students must meet re-registration requirements to be considered for admission

PROGRAM REQUIREMENTS:

(Curriculum 1864)

Semester I	Credits
CITA 110 Intro. to Information Technology	3
ENGL 101 Expository Writing	3
MATH 111 Survey of Math OR.....	3
MATH 121 College Algebra	4
PSYC 101 Introductory Psychology.....	3
American History (GER 4).....	3
	15-16
Semester II	
ACCT 101 Foundations of Financial Accounting OR	
ACCT 104 Survey of Accounting	4
MATH 141 Statistics	3
POLS 101 Intro. Gov't and Politics OR	
POLS 105 Nat'l Gov't and Politics.....	3
Foreign Language (GER 9).....	3
Arts Elective (GER 8)	3
	16

Semester III

EADM 201 Fundamentals of EADM	3
EADM 205 Risk & Hazard Impact Studies	3
SOCI 101 Introduction to Sociology.....	3
Other World Civil Elect. (GER 6).....	3
General Elective.....	3
	15

Semester IV

EADM 220 Disaster Mgmt. & Preparedness.....	3
EADM 222 Communities: Preparedness & Defense	3
Humanities Elective (GER 7)	3
Science Elective (GER 2)	3-4
West. Civilization Elect. (GER 5).....	3
	15-16

Semester V

BSAD 305 Public Budgeting & Fiscal Mgmt.	3
BSAD 301 Principles of Management	3
BSAD 319 Professional Ethics	3
BSAD 375 Leadership & Change.....	3
U/L Liberal Arts Elective	3
	15

Semester VI

EADM 307 Legal Issues in E&D	3
BSAD 310 Human Resource Management.....	3
BSAD 340 Management Communications *	3
U/L General Elective	3
U/L Program Elective	3
	15

Semester VII

EADM 400 Incident Command: System Coord. & Assessment	3
EADM 430 Simulated Disaster Training.....	3
CITA 400 Quantitative Approach to Mgmt.	3
U/L Liberal Arts	3
U/L Program Elective	3
	15

Semester VIII

EADM 435 Disaster Simulation	6
EADM 480 Internship in EADM	3, 6, 9
AND/OR	
EADM 485 Senior Project AND/OR	
U/L EADM Courses	9
	15

Upper Level Program Electives:

All upper level EADM, JUST, LELM, HSMB, CONS, ECON, BSAD, SSCI, CITA courses, and/or other upper-level courses with permission of instructor.

* *Fulfills writing intensive requirement.*

U/L = *Upper Level Courses (300/400)*

GER = *General Education Requirement*

NOTE: *Emergency Management students must meet all ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.*

Finance—BBA

As our society moves to a more service-oriented world, the area of financial services becomes critical to our present and future economic situation. The movement towards blurring of the worlds of business, finance, stock brokerage, bond trades, insurance, banking and retirement planning has produced a tremendous growth industry. SUNY Canton's Finance program puts our graduates on the leading edge of this service industry.

STUDENTS IN THIS MAJOR:

- Receive a solid fundamental education in the areas of business, finance, accounting, math, liberal arts, and sciences.
- Train in many operational areas of financial services.
- Have the opportunity to spend an entire semester in the financial industry.
- Prepare for graduate-level education.

CAREER OPPORTUNITIES:

The employment opportunities cover a broad range of options, including major employers and also entrepreneurship. Graduates are working in:

- Banking
- Insurance
- Credit Unions
- Brokerage Firms
- Financial Planning Firms
- Colleges and Universities

EMPLOYERS OF SUNY CANTON GRADUATES:

- Community Bank
- SEACOMM Federal Credit Union
- SUNY Canton
- North Franklin Federal Credit Union
- North Country Savings Bank
- MetLife

ADMISSION REQUIREMENTS:

- Students must be prepared to take Expository Writing (ENGL 101).
- Transfer students must meet re-registration requirements to be considered for admission.

PROGRAM REQUIREMENTS:

(Curriculum 0282)

Semester I	Credits
ACCT 101 Foundations of Financial Accounting.....	4
ECON 101 Macroeconomics.....	3
CITA 110 Intro. to Information Technology	3
ENGL 101 Expository Writing	3
Mathematics Elective (GER 1)	3-4
	16-17
Semester II	
ACCT 102 Foundations of Managerial Accounting.....	3
ECON 103 Microeconomics	3
MATH 141 Statistics	3
BSAD 200 Business Communications.....	3
Humanities Elective (GER 7)	3
	15
Semester III	
FSMA 210 Introduction to Finance.....	3
BSAD 120 Principles of Banking.....	3
BSAD 201 Business Law I	3
Arts Elective (GER 8)	3
General Elective	3
	15

Semester IV

BSAD 202 Business Law II.....	3
FSMA 312 Financial Management	3
Program ¹ Elective	3
Natural Sciences Elective (GER 2).....	3
American History Elective (GER 4).....	3
	15

Semester V

BSAD 301 Principles of Management	3
ECON 315 Global Economy	3
FSMA 315 Global Investments.....	3
BSAD 340 Management Communications *.....	3
Foreign Language Elective (GER 9).....	3
	15

Semester VI

BSAD 319 Professional Ethics	3
BSAD 350 Marketing.....	3
FSMA 415 Global Finance	3
FSMA 420 Financial Derivatives.....	3
West. Civilization Elective (GER 5).....	3
	15

Semester VII

FSMA 325 Financial Compliance & Regulation.....	3
FSMA 422 Risk Management.....	3
BSAD 310 Human Resource Management.....	3
BSAD 449 Strategic Policies & Issues	3
Program ¹ Elective U/L	3
	15

Semester VIII

FSMA 480** Finance Internship AND/OR....	6-15
FSMA 410** Senior Project AND/OR	3-15
U/L Program ² Electives.....	3-15
	15

*Fulfills writing intensive requirement.

**Reminder: Prerequisite to FSMA 480 or FSMA 410 is FSMA 429 (Orientation to Culminating Experience).

U/L = Upper Level Courses (300-400)

GER = General Education Requirement

Program¹ Electives: Courses in ACCT, BSAD, ECON, FSMA, LEST and MINS

Program² Electives: Courses in ACCT, BSAD, ECON, FSMA, LEST, CITA, JUST, LELM, and HSMB

NOTE: Finance students must meet all ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Funeral Services Administration—*B. Tech.*

The Bachelor of Technology degree in Funeral Services Administration is open to new students, transfer students and Funeral Directors who have passed the Nation Board Examination and are licensed. This is the only inclusive bachelor degree in Funeral Services Administration in New York State and one of only a few in the country.

STUDENTS IN THIS MAJOR:

- Participate in classes, practicums, and internships that provide theoretical education as well as practical raining and experience in all phases of the Funeral Service profession including embalming and funeral directing.
- Are eligible to take the National Board Examination required for licensure.
- Experience a learning environment that is rigorous yet supportive and flexible.
- Have a dedicated faculty who believe that the teaching-learning process is the most important aspect of their job.
- Will be involved in online and campus courses.

CAREER OPPORTUNITIES:

- Funeral Director
- Embalmer
- Pre-need Funeral Counselor in a funeral home
- Funeral Service after care specialist
- Allied Professions such as cemeteries, crematories, morgues, and medical examiners offices, organ and tissue banks, coroners, funeral supply sales as caskets, vaults, embalming fluids, and computer software companies

CAREER OUTLOOK:

- The United States Department of Labor projects a high need for graduates. Even more opportunities are available to graduates who are willing to relocate.

SPECIALIZATION OPTIONS:

Along with taking required courses a student can concentrate their remaining courses in their field of interest such as business, coroner preparation, or Human Services.

LICENSED FUNERAL DIRECTOR PROGRAM:

Licensed Funeral directors who have already graduated and passed the National Board Examination are eligible for obtaining credit for funeral service courses through challenge exams or portfolio development. The State University allows up to 30 credits in these types of experiential learning.

ADMISSION REQUIREMENTS:

- Students must be eligible for enrollment in Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102).
- Students must be eligible for enrollment in Survey of Mathematics (MATH 111) or College Algebra (MATH 121).
- Transfer students must have a minimum 2.0 GPA for admittance into the FSAD curriculum.

PROGRAM REQUIREMENTS

(Curriculum 1525)

Semester I

BIOL 101	Intro to Biology	4
PSYC 101	Intro to Psychology.....	3
ENGL 102	Oral and Written Expression	3
CITA 110	Intro to Information Technology.....	3
BSAD 100	Intro to Business.....	3
		15

Semester II

BSAD 200	Business Communications.....	3
MATH 111	Survey of Math OR	
MATH 141	Statistics	3
	English or Humanities Elective (GER 7)	3
	General Elective.....	3
	Social Science Elective	3
		15

Semester III

ACCT 101	Foundations of Financial Acct.	4
SSCI 315	Death, Dying & Bereavement	3
FSAD 111	Study of Funerals: Past and Present...	3
	Liberal Arts Elective (GER 4,5,6,8) ..	3
	General Elective.....	3
		16

Semester IV

BIOL 207	Human Anatomy.....	4
FSAD 214	Funeral Home Management I.....	3
HLTH 105	Pathology	3
FSAD 129	Clinical Practicum	2
	Liberal Arts Elective (GER 4,5,6,8) ..	3
	General Elective.....	3
		18

Semester V

FSAD 322	Funeral Home Management II	3
FSAD 121	Analytical Embalming Techniques	4
FSAD 225	Professional Funeral Practice.....	3
	U/L Liberal Arts Elective	3
	U/L General Elective	3
		16

Semester VI

FSAD 211	Embalming & Asep. Tech.....	4
FSAD 227	Human Response to Death.....	4
FSAD 401	Funeral Service Law.....	3
**	Intro to Internship.....	1
	U/L General Elective	3
		15

Semester VII

FSAD 440	Internship.....	8
FSAD 420	Current Issues in Funeral Service*	3
	U/L Management, Social Science or Health Elective)	3
		14

Semester VIII

FSAD 223	Restorative Art.....	4
FSAD 321	Advanced Embalming.....	4
**	Mortuary Compliance	2
FSAD 406	Bereavement Counseling	3
		13

* Fulfills writing intensive requirement.

** = Course under development

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

—"C" or better is required in FSAD121, FSAD211 and students must take the National Board Examination to pass FSAD325.

NOTE: Funeral Services Administration students must meet seven of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

CAUTION: Students applying for admission to Funeral Services Administration should contact their respective state boards of funeral service regarding that state board's approval of this particular program of instruction.

Graphic and Multimedia Design—*B. Tech.*

The Bachelor of Technology in Graphic and Multimedia Design (GMMD) is a fast paced technology and culture driven major for creative students interested in pursuing a four-year degree. Students can also expect to learn about podcasts, blogs, and other new forms of communication.

STUDENTS IN THIS MAJOR:

- Create and design original works using graphics, video, photography, sound, and animation.
- Develop communications skills, management skills, and analytical skills.
- Learn design theory and interact with the latest multimedia authoring software.
- Design and launch their own multimedia project individually, as part of a team, and/or complete an internship within the media field.

CAREER OPPORTUNITIES:

- Graphic designer
- Web designer
- Advertising specialist
- Public Relations specialist
- Video/Sound/or Video Game designer
- Journalist

POTENTIAL EMPLOYERS

- Web Design Firms
- Advertising Firms
- Government
- Education
- News Agencies
- Other (design departments)

ADMISSION REQUIREMENTS:

- Prepared to take Expository Writing (ENGL 101)
—NYS English Regents score ≥ 75 ; or
—Verbal SAT score ≥ 420 ; or
—Reading and Writing ACT scores ≥ 17 ; or
—Transfer student who has already passed a college level English course.
- Prepared to take GER Math
—NYS Geometry Regents or Math A plus one year; or
—Already passed Intermediate Algebra or equivalent.
- Transfer students from other institutions and majors may have to complete certain bridge courses that could extend their graduation date.

PROGRAM REQUIREMENTS:

(Curriculum 2026)

Semester I	Credits
GMMD 101 Intro to Media Studies.....	3
CITA 163 Survey of Information Technology....	3
ENGL 101 Expository Writing	3
HUMA 101 Intro to Drawing	3
MATH 121 College Algebra	4
	16

Semester II	
GMMD 102 Intro to Design	3
CITA 180 Intro to Programming	3
ENGL 202 Creative Non-Fiction.....	3
HUMA 189 Acting and Improvisation	
OR	
SPCH 104 Introduction to Speech.....	3
SOCI 101 Introduction to Sociology	3
	15

Semester III	
GMMD 201 Digital Photography	3
HUMA 201 Art History BCE to 16th Century **	
OR	
HUMA 202 Art History 16th-20th Centuries ** ..	3
ENGL 221 Creative Writing	3
Foreign Language (GER 9).....	3
Natural Science (GER 2).....	3-4
	15-16

Semester IV

GMMD 211 Film Analysis	3
SOCI 250 Sociology of Mass Media	3
American History (GER 4).....	3
Natural Science or Math Elective..	3-4
General Elective.....	3-4
	15-17

Semester V

GMMD 301 3-D Design.....	3
GMMD 313 Studies in Genre Film OR	
ENGL 334 Classical Theater OR	
ENGL 335 Contemporary Theater Lab.....	3-4
ENGL 309 Journalism*	3
CITA 342 Visual Programming.....	3
Western Civilization (GER 5).....	3
	15-16

Semester VI

GMMD 302 Digital Photojournalism OR	
GMMD 303 Experimental Digital Photography ...	3
ENGL 301 Professional Communication.....	3
CITA 330 Emerging Information Technology	
Applications.....	3
SOCI 305 Gender in the Media	3
Other World (GER 6)	3
	15

Semester VII

GMMD 401 Multimedia Product Design	3
GMMD 409 Issues in New Media Journalism	3
GMMD 411 Digital Documentary Video OR	
GMMD 412 Experimental Digital Video	3
GMMD 431 Transformative Media.....	3
GMMD 440 Senior Project Proposal/Internship	
Orientation.....	1
U/L Arts or Humanities Elective	
(GER 7, 8) **	3
	16

Semester VIII

GMMD 432 Virtual Worlds.....	3
SELECT ONE OR TWO COURSES.....	8
GMMD 441 Group Project.....	4
GMMD 442 Individual Project	4
GMMD 443 Arts Management Internship ..	4-8
U/L Elective	3
	14

*Fulfills writing intensive requirement

**Art History (HUMA 201/202) can be counted as either GER 7 or GER 8; this elective should be used to cover the remaining General Education area.

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

NOTE: Graphic and Multimedia Design students must meet all of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Health Care Management—B. Tech.

Health Care Management is a Bachelor of Technology degree, which includes study in health, business and management. Individuals will be prepared to enter public and private service jobs with theoretical and practical skills necessary for a challenging lifelong career in an ever changing technological society.

STUDENTS IN THIS MAJOR:

- May start as a freshman or transfer credits from a health curriculum for advanced standing in the major.
- The junior and senior years are presented as asynchronous online courses and thus attendance in Canton will not be necessary.
- Will have internships in the last semester of study.
- Will have a diverse background in health, business, and management.
- With AAS degrees in Nursing, Medical Laboratory Technician, Occupational Therapy Assistant, or Physical Therapist Assistant, students can transfer the courses in their major for the health core courses in this Bachelor of Technology program.

CAREER OPPORTUNITIES:

- Upward mobility in allied health fields
- Public and private service careers
- Insurance industry
- Research in public health
- Private industry

ADMISSION REQUIREMENTS:

- Biology Regents with a grade of 75 or higher.
- NYS Geometry Regents or Math A plus one year with passing grades.
- Chemistry Regents with a grade of 65 or higher.
- Students must be prepared to take Oral and Written Expression (ENGL 102).

- Transfer students must have a GPA of 2.0 or better.

Students who do not meet necessary prerequisites may be admitted to the College. However, completing the program may require more than four years.

PROGRAM REQUIREMENTS:

- All students will complete a minimum of 125 credits, maintaining a GPA of 2.5.
- In order to advance to junior level status all graduates will complete 65 credits, maintaining a GPA of 2.5.
- Course work from certificate and associate degree programs with a minimum grade of C may be accepted to permit advanced standing.
- In order to maintain junior and senior level status and to advance to the final semester, all students must maintain a GPA of 2.5.
- In order to advance to the final semester and begin an internship, all students must obtain a passing grade in HSMB 308 Health Services Management Internship Orientation.
- In order to graduate, all students must successfully complete 12 credits/480 hours of internship HSMB 408 Internship, along with HSMB 410 Senior Seminar. Both must be completed with a minimum grade of B. Failure of two internships will result in dismissal from the program.

(Curriculum 0253)

Semester I	Credits
HSMB 101 Intro. to Health Services Mgmt.	4
BIOL 150 College Biology I OR	
ESCI 101 Intro. to Env. Science AND	
ESCI 102 Intro. to Envi. Sci. Lab	4
CITA 110 Intro. to Information Tech.....	3
ENGL 102 Oral and Written Expression	3
PSYC 101 Introductory Psychology	3
	17

Semester II	
HLTH 100 Intro. to Med. Sci. w/Terminology* ..	2
BIOL 207 Human Anatomy OR	

BIOL 217 Human Anat. & Physiology I	4
MATH 111 Survey of Math OR	
MATH 141 Statistics	3
PSYC 225 Human Development.....	3
Humanities Elective (GER 7)	3
	15

Semester III

HLTH 103 Health: Current Perspectives & Practical Applications*	3
HLTH 104 Introduction to Gerontology	3
HLTH 105 Pathology	3
HLTH 110 Survey Complementary Medicine.....	3
BIOL 218 Human Anat. & Physiology II OR..	4
Liberal Arts Elective.....	3
	15-16

Semester IV

HLTH 200 Medical Terminology of Disease	3
ACCT 101 Foundations of Financial Acct.	4
BIOL 209 Microbiology	4
Social Sci. Elective (GER 4, 5, 6).....	3
General Elective.....	3
	17

Semester V

HSMB 301 Public Health Issues.....	3
HSMB 304 U.S. Health Care System	3
ACCT 102 Foundations of Managerial Acct.	3
BSAD 201 Business Law I	3
U/L Liberal Arts Elective (GER 4, 5, 6, 8)	3
	15

Semester VI

HSMB 302 Legal & Ethical Iss. Health Care ** ..	3
HSMB 305 Managed Care	3
HSMB 307 Health Care Facility Admin.	3
BSAD 340 Management Communications	3
FSMA 210 Introduction to Finance.....	3
	15

Semester VII

HSMB 306 Health Care Financing.....	3
HSMB 308 Health Services Management Internship Orientation	1
BSAD 301 Principles of Management	3
BSAD 310 Human Resource Management.....	3
BSAD 350 Marketing.....	3
U/L Liberal Arts Elective (GER 4, 5, 6, 8)	3
	16

Semester VIII

HSMB 408 Internship.....	12
HSMB 410 Senior Seminar	3
	15

** An applied course, which includes business courses, may be substituted.*

*** Fulfills writing intensive requirement*

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

NOTE: Health Care Management students must meet seven of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Industrial Technology Management—*B. Tech.*

The Industrial Technology Management (ITM) curriculum provides students with the opportunity to blend technical interests with management and leadership aspirations. This academic program is ideal for students seeking to build upon a background in engineering technology (e.g. electrical, mechanical, civil, or construction) with an emphasis on developing abilities for project management, systems thinking, managerial skills, entrepreneurship, and business development.

STUDENTS IN THIS MAJOR:

- Have a specialization in an engineering discipline.
- Are able to plan and manage technical projects.
- Are prepared to contribute to business development activities such as product development, operational support, technical marketing, and production management.
- Develop skills to function in and lead a team based effort.
- Are able to communicate in an organized manner through technical reports in written, oral, and other formats appropriate to their careers.

CAREER OPPORTUNITIES:

Employment opportunities are broad and span the range of industry and commerce. Opportunities in this market include:

- Manufacturing and quality control
- Operations management

- Logistics
- Field managers
- Planning and scheduling
- Sales

ADMISSION REQUIREMENTS:

Incoming students will meet all general admission requirements as freshmen to SUNY Canton and be prepared to take College Algebra (MATH 121). Transfer students will be evaluated individually by the program academic advisor and must have a minimum GPA of 2.5.

PROGRAM REQUIREMENTS:

(*Curriculum 0935*)

Semester I	Credits
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
MATH 123 Pre-Calculus	4
MECH 111 Computer Drafting	3
PHYS 121 College Physics I.....	3
PHYS 125 Physics Lab I	1
Program Elective.....	3
	<u>17</u>

Semester II	Credits
ACCT 101 Foundations of Financial Accounting OR	
ACCT 104 Survey of Accounting	4
MATH 161 Calculus I	4
PHYS 122 College Physics II	3
PHYS 126 Physics Lab II	1
Program Electives	6
	<u>18</u>

Semester III	Credits
ECON 103 Microeconomics OR	
ECON 101 Macroeconomics.....	3
MATH 141 Statistics OR	
MECH 251 Quality Control.....	3
Program Electives	6
GER (4, 5, 6, 7, 8, 9)	3
	<u>15</u>

Semester IV	Credits
BSAD 201 Business Law I.....	3
Program Electives	6
GER (4, 5, 6, 7, 8, 9)	6
	<u>15</u>

Semester V	Credits
BSAD 340 Management Communications*	3
BSAD 355 Management of Technology.....	3
SOET 361 Project Management	3
Program Electives	6
	<u>15</u>

Semester VI	Credits
BSAD 301 Principles of Management	3
SOET 370 Engineering Project Analysis.....	3
Program Electives	6
U/L Liberal Arts/Science	3
	<u>15</u>

Semester VII	Credits
BSAD 449 Management Policies	3
SOET 377 Engineering Technology Issues.....	1
SOET 430 Systems Analysis	3
Program Electives	6
U/L Liberal Arts/Science	3
	<u>16</u>

Semester VIII	Credits
SOET 348 Engineering Safety.....	1
SOET 477 Engineering Technology Capstone Project.....	3
General Elective	3
Program Electives	6
	<u>13</u>

* *Fulfills writing intensive requirement.*

L/L = Upper Level Courses (100/200).

U/L = Upper Level Courses (300/400).

GER = General Education Requirement.

Program Electives: in the Lower Level are from the School of Engineering; in the Upper Level are from Engineering, Business and GMMD.

All Program Elective courses presented for graduation must have at least a grade of "C" (or transfer credit).

NOTE: Industrial Technology Management students must meet seven of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement. Four of the GERs (GER 1, 2, 3, and 10) are met with existing curriculum course requirements. The remaining three GERs must be met by selecting one course each in three of the following six areas: American History (GER 4); Western Civilization (GER 5); Other World Cultures (GER 6); Humanities (GER 7); The Arts (GER 8); Foreign Language (GER 9).

Information Technology—B.Tech.

The Information Technology (IT) curriculum introduces the student to computer systems, networks, and communications. This academic program is appropriate for students seeking careers in information technology including network administration, operations, systems design, troubleshooting and management. Students have the opportunity to learn systems analysis and design, information management, security implementation, web administration and commerce, and programming.

STUDENTS IN THIS MAJOR:

- Develop management skills, communication skills, and other skills in order to meet their challenging career.
- Are taught by qualified faculty in small classes.
- Gain hands-on experience on computer hardware, networking, database management, web development, security implementation, and IT applications.
- Will complete a Capstone Project and may take an internship.

CAREER OPPORTUNITIES:

- System Analyst
- IT Consultant
- Network Administrator
- Database Manager
- Web Master
- IT Security Specialist
- IT Position in any industry

POTENTIAL EMPLOYERS:

- IT Companies
- Health Management Services
- Financial Services
- Government
- Education
- Military
- IT Departments in any industry

ADMISSION REQUIREMENTS:

- Students must be qualified to enter at

least College Algebra (MATH 121) and Oral and Written Expression (ENGL 102).

- Chemistry or Physics courses are recommended.
- Computer or technology courses are strongly recommended.
- Transfers into this program must have a 2.5 GPA for admission. Students from other institutions and majors may have to complete certain bridge courses that could extend their graduation date.

Students who do not meet necessary pre-requisites may be admitted to the College. However, completing the program may require more than four years.

PROGRAM REQUIREMENTS: *

(Curriculum 2045)

Semester I	Credits
BSAD 100 Introduction to Business.....	3
CITA 163 Survey of Information Tech.	3
CITA 152 Computer Logic	3
ENGL 102 Oral and Written Expression ¹	3
Mathematics Elective.....	3
	<u>15</u>

Semester II	Credits
CITA 170 Computer Concepts & Oper. Sys.	3
CITA 171 Operating System Fundamentals	3
MATH 141 Statistics	3
Accounting ²	4
GER Course	3
	<u>16</u>

Semester III	Credits
CITA 180 Introduction to Programming.....	4
CITA 215 Database Concepts & Apps	3
CITA 220 Data Comm & Network Tech	3
CITA 221 Data Comm & Network Tech Lab ...	1
Economics ³	3
Program Elective ⁴	3
	<u>17</u>

Semester IV	Credits
CITA 204 Systems Analysis and Design **	3
CITA 250 Information Security	3
GER Course	3
Program Electives ⁴	6
	<u>15</u>

Semester V	Credits
CITA 310 Web Server Administration.....	3
CITA 330 Emerging IT Applications	3
MINS 300 Management Information Sys.....	3

SOET 361 Project Management.....	3
GER Course	3
	<u>15</u>

Semester VI	Credits
BSAD 301 Principles of Management	3
CITA 400 Quantitative Approaches to Mgmt. ...	3
SOET 370 Engineering Project Analysis.....	3
GER Course	3
Program Electives ⁴	6
	<u>18</u>

Semester VII	Credits
CITA 479 IT Internship Orientation	1
Program Electives ⁴	9
U/L Liberal Arts/Science	3
GER Course	3
	<u>16</u>

Semester VIII	Credits
CITA 460 IT & Networked Economy	3
SOET 477 Capstone Project	3
CITA 480 Internship in IT OR.....	6
Program Electives ⁴	6
	<u>12</u>

* Pending State Education Department approval.

** Fulfills writing intensive requirement.

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

Students in this program must take at least 45 upper level credits (course numbers 300/400) and a minimum of 30 Liberal Arts credits.

¹ENGL 101 Expository Writing may be taken in place of ENGL 102 Oral and Written Expression.

²Accounting: ACCT 104 Survey of Accounting recommended. Students interested in further course work in accounting or in business should take ACCT101 Foundations of Financial Accounting.

³Economics: ECON 101 Macroeconomics or ECON 103 Microeconomics recommended.

⁴Program Elective: Any course from the Canino School of Engineering Technology, the Business Department (Including ACCT 102 Foundations of Managerial Accounting) or the Graphic and Multimedia Department.

NOTE: Information Technology students must meet seven of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

ADDITIONAL GRADUATION REQUIREMENTS

Students must take at least four upper level CITA/MINS courses and SOET 477 (Capstone Project) from SUNY Canton. Each required CITA/MINS/SOET course used to meet graduation requirements must have a grade of C or higher or transfer credit.

Legal Studies—*B. Tech.*

According to the U.S. Department of Labor Bureau of Labor Statistics, “The legal system affects nearly every aspect of our society, from buying a home to crossing the street.” Such a profound impact suggests that there are a variety of opportunities for individuals with an education in Legal Studies. The Department of Labor states that employers prefer graduates of postsecondary education programs. A graduate of SUNY Canton’s Legal Studies program may find employment in law firms, corporations, hospitals, and local, state or federal government offices. Since the program covers many legal specialties, students may choose electives that may help them to specialize in one or more areas.

STUDENTS IN THIS MAJOR:

- Spend a significant amount of time doing legal research and legal writing
- May also take courses in management and criminal investigation
- Receive an interdisciplinary education
- Culminate their education with a semester-long internship

CAREER OPPORTUNITIES

- Paralegals or legal assistants in law firms
- Real estate and mortgage preparation
- District Attorney, Sheriff and Probation Offices
- Freelance Paralegal

CAREER OUTLOOK

- Jobs for graduates in Legal Studies are projected to grow faster than average for all occupations through 2012 according to the U.S. Department of Labor Bureau of Labor Statistics.

ADMISSION REQUIREMENTS:

- Students must be prepared to take Expository Writing(ENGL 101) or Oral and Written Expression(ENGL 102).
- Transfer students must meet re-registration requirements to be considered for admission.

PROGRAM REQUIREMENTS

(Curriculum 0818)

Semester I	Credits
LEST 101 American Legal System.....	3
BSAD 201 Business Law I.....	3
CITA 110 Intro. to Information Technology	3
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
JUST 101 Intro. to Criminal Justice.....	3
FYEP 101 First Year Experience.....	1
	<u>16</u>

Semester II	Credits
BSAD 200 Business Communications.....	3
BSAD 202 Business Law II.....	3
CITA 101 Library/Info Literacy	1
Mathematics Elective (GER 1)	3-4
Social Science Elective (GER 3)	3
American History Elective (GER 4).....	3
	<u>16-17</u>

Semester III	Credits
JUST 110 Criminal Law	3
ACCT 101 Foundations of Financial Acct.	4
Foreign Language (GER 9).....	3
Natural Sciences Elective (GER 2) 3-4	
West. Civilization Elec. (GER 5).....	3
	<u>16-17</u>

Semester IV	Credits
LEST 310 Legal Research	3
ACCT 102 Foundations of Managerial Acct.	3
JUST 111 Criminal Procedure	3
Other World Civilization (GER 6) ...	3
General Elective.....	3
	<u>15</u>

Semester V	Credits
LEST 330 Legal Writing*	3
LEST 350 Litigation.....	3
LEST 360 Family Law.....	3
JUST 315 Constitutional Law.....	3
Program Elective.....	3
	<u>15</u>

Semester VI	Credits
LEST 449 Advanced Legal Writing	3
LEST 370 Real Property.....	3
LEST 380 Wills, Estates, and Trusts	3
BSAD 319 Professional Ethics.....	3
Humanities Elective (GER 7)	3
	<u>15</u>

Semester VII	Credits
LEST 429 Orientation to Culminating Experience Legal Studies (If taking LEST 480 in 8th semester)	1
Arts Elective (GER 8).....	3
Program Elective.....	3
U/L Program Elective.....	3
U/L Program Elective.....	3
General Elective.....	3
	<u>15-16</u>

Semester VIII	Credits
LEST 480 Legal Studies Internship OR.....	15
LEST 485 Senior Project OR	15
U/L Program Electives.....	3-15
	<u>15</u>

* Fulfills writing intensive requirement.

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

Program Electives: Courses in LELM, LEST, BSAD, JUST, or Accounting for Government and Non-Profit Organizations (ACCT 242), Auditing Concepts (ACCT 301), Environmental Law (CONS 388), Legal Issues in E & D (EADM 307), Perpetrators and Victims: Crime and Violence in Literature (ENGL 305), Professional Writing and Communication (ENGL 301), Estate Planning (FSMA 410), Legal and Ethical Issues In Health Care (HSMB/NURS 302), Funeral Service Law (MORT 401).

NOTE: Legal Studies students must meet all ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Management—BBA

The Bachelor of Business Administration in Management provides a solid foundation in current management theory and practice. Students are introduced to the principles of accounting, finance, marketing, strategy, operations, human resources, economics, ethics, and communications. Case studies, internships and real world applications in corporate, non-profit, and government settings are integral parts of this exciting four-year program.

STUDENTS IN THIS MAJOR:

- Are educated in all of the functional managerial areas
- Use cutting-edge case studies to hone analytical skills

CAREER OPPORTUNITIES:

Graduates plan, organize, and control organizational resources to enhance value to stockholders and stakeholders of the organization. Graduates assume entry managerial roles in:

- Retail organizations
- Non-profit organizations
- Government organizations
- Manufacturing organizations

ADMISSION REQUIREMENTS:

- Students must be prepared to take Expository Writing (ENGL 101).
- Transfer students must meet re-registration requirements to be considered for admission.

PROGRAM REQUIREMENTS:

(Curriculum 1645)

Semester I	Credits
BSAD 100 Intro. to Business	3
CITA 110 Intro. to Information Technology	3
ENGL 101 Expository Writing (GER 10)	3
Mathematics Elective (GER 1)	3-4
Western Civilization (GER 5)	3
	<u>15-16</u>

Semester II	Credits
BSAD 200 Business Communications	3
ACCT 101 Foundations of Financial Accounting	4
ECON 101 Macroeconomics (GER 3)	3
General Elective	3
Humanities (GER 7)	3
	<u>16</u>

Semester III	Credits
BSAD 201 Business Law I	3
ACCT 102 Foundations of Managerial Accounting	3
ECON 103 Microeconomics	3
Arts Elective (GER 8)	3
L/L Elective (BSAD/ECON/ACCT)	3
	<u>15</u>

Semester IV	Credits
BSAD 202 Business Law II	3
FSMA 210 Introduction to Finance	3
MATH 141 Statistics	3
Natural Science (GER 2)	3-4
L/L Elective (BSAD/ECON/ACCT)	3
	<u>15-16</u>

Semester V	Credits
BSAD 301 Principles of Management	3
BSAD 310 Human Resource Management	3
BSAD 355 Management of Technology	3
U/L Elective (BSAD/ECON/ACCT/MINS)	3
Foreign Language (GER 9)	3
	<u>15</u>

Semester VI	Credits
BSAD 319 Professional Ethics*	3
BSAD 340 Management Communications	3
BSAD 350 Marketing	3
ECON 314 Managerial Economics	3
American History (GER 4)	3
	<u>15</u>

Semester VII	Credits
BSAD 400 Operations Management	3
BSAD 449 Strategic Policies and Issues	3
General Elective	3
Other World Civilization (GER 6)	3
U/L Elective (BSAD/ECON/ACCT/MINS)	3
	<u>15</u>

Semester VIII	Credits
BSAD 450 Business Internship AND/OR ...	6-15
BSAD 410 Senior Project AND/OR	3-15
U/L Program Elective	3-15
	<u>15</u>

L/L = Lower Level Courses (100/200)

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

* Fulfills writing intensive requirement.

Program Electives: ACCT, BSAD, ECON, FSMA, LEST, GMMD, HSMB AND MINS

Reminder: Prerequisite to BSAD 450 or BSAD 410 is BSAD 405 (Orientation to Culminating Experience)

NOTE: Management students must meet all ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Nursing—BS

The SUNY Canton RN-BS Nursing program is based upon the beliefs that:

- Communities are comprised of unique, holistic individuals and aggregates who have values and beliefs that originate from their life-world, who have specific needs and are capable of making decisions by themselves, with others, and/or by proxy.
- Health and well-being are dynamic lived experiences uniquely defined by the individual and community within the context of culture and environment.
- Nursing is a unique profession that provides a service to society that is culturally sensitive, evidence-based, collaborative, and individualized. Utilizing the nursing process, the nurse facilitates transformation within individuals, groups, and communities to attain desired outcomes.

STUDENTS IN THIS MAJOR:

- Integrate theory from nursing, humanities, and biological and social sciences to transform the associate degree Registered Nurse to the baccalaureate prepared Registered Nurse.
- Facilitate the development of nurse leaders capable of assuming influential roles in the positive, transformation of individuals, groups, and the healthcare system.

- Promote the development of critical thinking and reflection through the synthesis of theoretical, research-oriented, evidence-based practice.
- Transform students from the role of associate degree prepared to baccalaureate prepared nurses through the mentoring relationship.

CAREER OPPORTUNITIES:

- Public and Community Health
- Armed Services and Veterans Administration
- Entry level nursing management
- Acute, long-term, and specialty nursing units

ACCREDITATIONS:

- Registered by the NYS Education Department, Office of the Professions.

ADMISSION REQUIREMENTS:

- In order to be considered for admission, students will need to be graduates of a diploma or associate degree nursing program from an accredited college and be licensed to practice as a Registered Nurse prior to enrolling in: Health Assessment in Nursing (NURS 303), Nursing Management and Leadership (NURS 400), and Community Health Nursing (NURS 402). Students must have completed a minimum of 60 credits, 33 of which must be in nursing with the remainder consisting of courses from the liberal arts and sciences.

PROGRAM REQUIREMENTS:

(Curriculum 0291)

Semester I	Credits
NURS 300 Conceptual Frameworks in Nursing.....	3
NURS 303 Health Assessment In Nursing.....	3
MATH 111 Survey of Math.....	3
Liberal Arts Elective *	3
U/L Liberal Arts Elective	3
	15

Semester II	Credits
NURS 302 Legal & Ethical Issues in Healthcare.....	3
NURS 304 Health Promotion & Restoration	3
BIOL 310 The Genome.....	3
MATH 141 Statistics	3
Liberal Arts Elective (GER 4, 5, 6, 7, 8)	3
	15

Semester III	Credits
NURS 301 Public Health Issues.....	3
NURS 370 Research Methods in the Social & Health Sciences	3
NURS 400 Nursing Mgmt & Leadership **	3
Liberal Arts Elective (GER 4, 5, 6, 7, 8)	3
U/L Liberal Arts Elective (GER 4, 5, 6, 7, 8)	3
	15

Semester IV	Credits
NURS 402 Community Health Nursing	3
NURS 403 Transcultural Nursing.....	3
U/L Liberal Arts Electives (GER 4, 5, 6, 7, 8)	6
U/L Liberal Arts Elective	3
	15

—Students must pass all courses with a grade of “C” or better prior to graduating with the BS degree.

* Foreign language (GER 9) recommended

** Fulfills writing intensive requirement

UL = Upper Level Courses (300/400)

GER = General Education Requirement

NOTE: Nursing students must meet all ten General Education Requirements, 45 upper level credits, and successfully complete the SUNY Canton computer competency requirement.

Sports Management—BBA

The SUNY Canton BBA in Sport Management prepares individuals for professional careers within sport organizations, such as non-profit companies, commercial and private enterprises, government/public sector jobs, and various levels of professional sports.

The sports industry has evolved and changed over the years, and so has the study of Sport Management. The SUNY Canton BBA in Sport Management will develop capable sport management professionals able to apply creative communication, leadership, and managerial skills in an array of positions in the sport industry. These positions can include sales, marketing, public relations, operations, facilities, and event management. The culminating experience of the SUNY Canton Sport Management student will include either a research project or an internship. The internship route provides opportunities that are only limited to the aspirations and determination of the individual!

STUDENTS IN THIS MAJOR:

- Will be prepared to be effective managers and leaders in the various skills, roles, and functions of sport management professionals.
- Develop communication and technical skills needed to be effective professionals in various sport management settings.
- Will gain valuable hands-on experience and developmental insights from applied learning opportunities throughout the program.

CAREER OPPORTUNITIES

Typical career paths for sport management graduates include:

- Sport Event Management
- Marketing and Promotions
- Athletic Director
- Sport Facilities Manager

- Sport Programming
- Athletic Business Operations
- Sport Media Relations
- Ticket Sales Operations
- Sport Corporate Sales
- Recreation Programming
- Sport Coordinators

In addition, the SUNY Canton Sport Management program will prepare students who desire to pursue an advanced degree in Sport Management.

ADMISSION REQUIREMENTS

- Students must satisfy SUNY Canton General Admission's requirements.
- Students must have prerequisites for College Algebra (MATH 121) (Math A Exam plus 1 year)
- Transfer student must have completed College Algebra (MATH 121) or equivalent with a 2.0, and Basic Communications GER 10 with at least a 2.5.

PROGRAM REQUIREMENTS

(Curriculum 0182)

Semester I	Credits
BSAD 100 Introduction to Business.....	3
CITA 110 Intro. to Information Technology	3
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
MATH 121 College Algebra	4
General Elective.....	3
	16
Semester II	
SPMT 101 Foundations of	
Sports Management.....	3
ACCT 101 Foundations of Financial	
Accounting.....	4
ECON 101 Macroeconomics.....	3
Natural Science (GER 2)	3-4
Humanities (GER 7)	3
	16-17
Semester III	
SPMT 202 Sport in Society	3
BSAD 201 Business Law I	3
ECON 103 Microeconomics	3

Art Elective (GER 8)	3
Western Civilization (GER 5).....	3
	15

Semester IV

SPMT 203 Leadership for Sports Professionals ...	3
BSAD 301 Principles of Management	3
BSAD 310 Human Resource Management.....	3
FSMA 210 Introduction to Finance.....	3
American History (GER 4).....	3
	15

Semester V

SPMT 304 Legal Issues in Sport	3
SPMT 305 Sports Finance	3
BSAD 319 Professional Ethics	3
BSAD 350 Marketing.....	3
Foreign Language (GER 9)	3
	15

Semester VI

SPMT 306 Sports Operations & Facilities Mgt....	3
SPMT 307 Sports Marketing.....	3
SPMT 308 Sports Event Management.....	3
Other World Civilization (GER 6) ...	3
U/L Program Elective	3
	15

Semester VII

SPMT 410 Orientation to Culminating	
Experience	1
SPMT 411 Sports Public Relations*	3
SPMT 412 Sports Sales and Sponsorships.....	3
U/L Program Elective	3
General Elective.....	6
	16

Semester VIII

SPMT 421 Sport Management Internship	6-15
OR	
SPMT 422 Senior Project and Upper Level	
Program Electives	3-15
	15

Recommended Program Electives

SPMT 309 Sport Governance.....	3
SPMT 413 Contemporary Issues in	
College Sport Administration	3
SPMT 414 Labor Relations in Sport.....	3
BSAD 420 Applied Organizational Mgt.	3

(Other upper level BSAD courses also accepted as Program Electives)

* *Fulfills writing intensive requirement*

UL = Upper Level Courses (300/400)

GER = General Education Requirement

NOTE: Sports Management students must meet ten General Education Requirements, and successfully complete the SUNY Canton computer competency requirement.

Veterinary Services Management—*B. Tech.*

The Bachelor of Technology in Veterinary Services Management constitutes the final two years of a 2+2 articulation program in which the first two years entail completion of a degree in Veterinary Technology from an accredited program. This degree serves to provide the knowledge and skills necessary to manage a business or organization that provides veterinary care to animals. Emphasis is placed upon establishing a foundation in basic business and accounting principles, then applying these principles to the management of specific types of veterinary businesses and institutions. Students will complete the program with an internship concentrating on management and administration within a veterinary setting. This program may be completed partially or entirely online.

STUDENTS IN THIS MAJOR:

- Begin by laying a foundation in Business, Accounting, Math, and Liberal Arts.
- Build upon this foundation with coursework specific to veterinary management.
- Will spend a semester in the field as an intern in a managerial capacity.
- Are prepared for entry-level management positions in veterinary hospitals or other veterinary industries or organizations.
- Will complete the course work required for Certified Veterinary Practice Manager (CVPM) certification.

CAREER OPPORTUNITIES:

- Veterinary Hospital Management
- Research Facility Management
- Diagnostic Laboratory Management
- Animal Shelter Management
- Herd Health Management
- Zoo Management
- Public Sector employment

CAREER OUTLOOK:

- Veterinary Technician has been listed as one of Money Magazine's "Top 10 Fastest Growing Career Fields." Coupling this training with a baccalaureate degree focusing on veterinary business management increases its value, enhancing the earning potential of graduates.
- Veterinary hospitals and other animal care facilities seek managers with not only a working knowledge of the medical and technical aspects of veterinary medicine, but also an understanding of the operational structure of animal care facilities and the ability to oversee the personnel, information, finances, infrastructure, equipment, and other integral components of the operation of these facilities.
- With fewer, larger veterinary facilities becoming the norm, there is greater stratification of duties within these facilities, and greater demand for full-time managers and Technician/Managers.

ADMISSION REQUIREMENTS:

- Graduation from an AVMA accredited veterinary technology program.

- Veterinary Technician licensure, registration, or certification, as applicable for state of residency, or eligibility thereof.

PROGRAM REQUIREMENTS:

(Curriculum 1672)

Semester V

ACCT 101	Foundations of Financial Accounting	4
BSAD 201	Business Law I.....	3
BSAD 340	Management Communications	3
MATH 111	Survey of Mathematics OR	
MATH 141	Statistics	3
	Liberal Arts Elective (GER)	3
	U/L Liberal Arts Elective (GER)	3
		19

Semester VI

ACCT 102	Foundations of Managerial Accounting	3
BSAD 215	Small Business Management	3
VSCT 301	Veterinary Hospital Management I	3
BSAD 310	Human Resource Management	3
HSMB 303	Occupational Health and Safety	3
		15

Semester VII

HSMB 301	Public Health Issues.....	3
BSAD 301	Principles of Management	3
VSCT 302	Veterinary Hospital Mgt. II	3
VSCT 308	Veterinary Services Management Internship Orientation	1
VSCT 401	Issues & Perspectives in Veterinary Medicine*	3
	U/L Liberal Arts Elective (GER)	3
		16

Semester VIII

VSCT 408	Internship for Veterinary Services Management	12
HSMB 410	Senior Seminar	3
		15

*Fulfills writing intensive requirement.

U/L = Upper Level Courses (300/400)

GER = General Education Requirement

NOTE: Veterinary Services Management students must meet eight of the ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Accounting—AAS

STUDENTS IN THIS MAJOR:

- Learn accounting theory, financial, managerial and cost accounting systems.
- Learn how accountants track, report, and interpret activity to allow for appropriate decisions by business, government, education, and individuals.
- Students have the opportunity to receive IRS approved training, to be certified in preparing taxes, and to volunteer through the only Volunteer Income Tax Assistance (VITA) site in St. Lawrence County.

CAREER OPPORTUNITIES:

- Private business and industry
- Public accounting agencies
- Governmental accounting positions
- Tax preparation
- Financial management

CAREER OUTLOOK:

Students with a degree in accounting are positioning themselves for career advancement and greater earning power. The accounting profession is committed to delivering a strong ethical foundation and a commitment to lifelong learning. The role of the accountant is ever changing and integral to any business entity.

TYPICAL JOBS UPON GRADUATION:

- Staff Accountant
- Claims Adjustor
- Project Manager
- Credit Analyst
- Loan Specialist
- Account Clerk
- Tax Preparer
- Business Manager

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Lowe's
- St. Lawrence County
- Pinto, Mucenski & Watson PC
- United Helpers
- Home Depot
- Claxton-Hepburn Medical Center
- C. Rowe Accounting & Tax Preparation
- North Country Savings Bank
- Jacobs Manufacturing
- SeaComm Credit Union
- Burlington Vermont School District Business Office

TRANSFER OPPORTUNITIES:

- Clarkson University
- SUNY Canton, SUNY Albany, SUNY IT, SUNY Plattsburgh, SUNY Potsdam, SUNY Oswego
- Siena College
- LeMoyne College
- Rochester Institute of Technology
- Syracuse University
- University of Vermont

Students wishing to transfer into a four-year program should consult their transfer school of choice prior to transfer.

ADMISSION REQUIREMENTS:

- Students must be prepared to take Expository Writing (ENGL 101).

PROGRAM REQUIREMENTS:

(Curriculum 0630)

Semester I	Credits
ACCT 101 Foundations of Financial Accounting.....	4
ECON 101 Macroeconomics.....	3
CITA 110 Intro. to Information Technology	3
ENGL 101 Expository Writing	3
Mathematics*	3-4
	16-17

Semester II	
ACCT 102 Foundations of Managerial Accounting.....	3
BSAD 200 Business Communications**	3
ECON 103 Microeconomics	3
Humanities Elective (GER 7)	3
Mathematics (GER 1)	3-4
	15-16

Semester III	
ACCT 306 Cost Accounting I	3
ACCT 301 Intermediate Accounting I.....	3
BSAD 201 Business Law I.....	3
FSMA 210 Intro. Finance.....	3
Program Elective.....	3
	15

Semester IV	
ACCT 302 Intermediate Accounting II	3
Accounting Elective	3
Program Elective or GER	3
Program Elective or GER	3
General Elective or GER (2, 4, 5, 6, 8, 9)	3
	15

* *Intermediate Algebra (MATH 106); Math of Finance (MATH 108) or higher.*

** *Fulfills writing intensive requirement.*

GER = General Education Requirement

Program Electives: ACCT, BSAD, ECON, FSMA, LEST, or MINS

NOTE: Accounting students must successfully complete the SUNY Canton computer competency requirement.

Air Conditioning Engineering Technology—AAS

SUNY Canton is a leader in air conditioning education, and this program is well-suited for individuals with an interest in energy and technology. With energy costs at their current level, this program leads to employment opportunities across the U.S. and around the globe. It also provides excellent preparation for entry into baccalaureate programs such as Alternative and Renewable Energy Systems or Industrial Technology Management at SUNY Canton. Students also pursue baccalaureate degrees at other institutions.

STUDENTS IN THIS MAJOR:

- Prepare for employment as a air conditioning technician upon graduation.
- Study under experienced HVAC engineers.
- Work in spacious, well-equipped laboratories.
- Participate in community service projects related to their curriculum.
- Are introduced to the current trends and future directions of the HVAC industry.
- Are active participants in ASHRAE (American Society of Heating, Refrigeration, and Air Conditioning Engineers).
- Have the opportunity to shadow employers in the field during the freshman year.
- Have opportunities for summer work in the HVAC field.

CAREER OPPORTUNITIES:

- Service Technicians
- HVAC Contractors
- Designers
- HVAC Sales
- Controls Specialists

CAREER OUTLOOK:

- All graduating students seeking employment in the past two years have accepted employment by the first of June after graduation.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Day Automation Systems
- Prax Air, Inc.
- Central New York Trane
- Siemens
- Thomas Associates
- T.P. Woodside, Inc.
- Galson Engineering
- Bomac
- Hyde-Stone
- NEPCO
- GEMMA Power Systems

ACCREDITATION:

- Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 – Telephone (410) 347-7700.

ADMISSION REQUIREMENTS:

- Students must be qualified to enter Pre-Calculus Algebra (MATH 123)

Students who do not meet the recommended high school math prerequisites will be admitted to either Heating and Plumbing Service or Air Conditioning Maintenance & Repair certificate programs. Students will be admitted into the Air Conditioning Engineering Technology program upon successful completion of either certificate program.

PROGRAM REQUIREMENTS:

(Curriculum 0444)

Semester I	Credits
ACHP 101 Refrigeration I	2
ACHP 121 Air Conditioning Fresh. Lab. I	1
MECH 111 Computer Drafting	3
ENGL 102 Oral and Written Expression	3
MATH 123 Pre-Calculus Algebra	4
PHYS 121 College Physics I	3
PHYS 125 Physics Lab I	1
	<u>17</u>

Semester II	Credits
MECH 241 Fluid Mechanics	3
MATH 161 Calculus I	4
SOET 110 Computer Applications for Tech.	2
SOET 111 Intro. to Computer Programming	1
PHYS 122 College Physics II	3
PHYS 126 Physics Lab II	1
English (Literature)	3
	<u>17</u>

Semester III	Credits
ACHP 233 Pipe Drafting	1
ACHP 243 Air Conditioning I	3
ACHP 253 Domestic & Commercial Heating I *	4
ELEC 261 Electricity	4
MFGT 220 Instrumentation & Controls	3
Social Science Elective	3
	<u>18</u>

Semester IV	Credits
ACHP 244 Air Conditioning II	3
ACHP 254 Domestic & Commercial Heating II	4
ACHP 264 Air Conditioning Syst. Design	1
ELEC 141 Industrial Controls	2
MECH 225 Intro. to Thermodynamics	3
MECH 226 Thermofluid Lab	1
	<u>14</u>

*Fulfills writing intensive requirement.

NOTE: Air Conditioning Engineering Technology students must successfully complete the SUNY Canton computer competency requirement.

ADDITIONAL GRADUATION REQUIREMENTS

Students must have completed while at SUNY Canton, 12 credits of 200 level courses, including ACHP 264, contained in the current Air Conditioning curriculum and earning a minimum GPA of 2.0 for all such credit hours taken while under the direct advisement of the program faculty.

Apprentice Training: Industrial Trades—AAS

STUDENTS IN THIS MAJOR:

- Enter into this program while working towards or after obtaining a Journeyman's Certificate through technical instruction and on-the-job training through the BOCES coordinated NYS Apprentice Program.
- Earn the equivalent of one year's college-level study following satisfactory completion of the Journeyman's Certificate, leading to an Associate in Applied Science.

CAREER OPPORTUNITIES:

- Program is designed to prepare skilled tradesmen to enhance their employment growth potential, not entry-level employment.

POTENTIAL SALARY:

- Average salary for skilled trades employees varies greatly depending on employer. This degree can enhance the employee's earning ability both with the current employer and future employers.

PROGRAM REQUIREMENTS:

(Curriculum 0473)

Credits

Related Technical Instruction and
Supervised On-the-Job Training30

*(Represented by satisfactory completion of Journeyman's
Certificate* with related instruction provided by St.
Lawrence-Lewis BOCES)*

English/Humanities.....6
Social Sciences6
Mathematics/Science..... 6-8
Liberal Arts & Science Elective.....3
General Electives9
30-32

** Fulfills writing intensive requirement.*

Automotive Technology—AAS

Graduates of the Automotive Technology program experience an exciting period of transition as technologies continue their shift toward much higher fuel efficiency. Recruiters and employers of SUNY Canton's graduates include dealerships, service industries, automobile manufacturers, and parts suppliers. Graduates learn how to troubleshoot, diagnose and repair all aspects of the automobile power train, suspension, steering, braking and air conditioning systems.

STUDENTS IN THIS MAJOR:

- Utilize the latest technology in an electronics-based curriculum.
- Acquire extensive hands-on experience in well-equipped laboratories.
- Receive a world class education in automotive electrical, mechanical, technical, and services areas.
- Learn on late model cars donated by automotive manufacturers.
- Get special attention from faculty in small laboratory classes.
- Are encouraged to take the Automotive Service Excellence certification test upon completion of course work.
- Enjoy outstanding career placement.

CAREER OPPORTUNITIES:

- Automotive Service Technician
- Service Manager
- Service Advisor
- Industrial Research and Development
- Automotive Machine Shop
- Auto Parts Manager/Owner
- Technical Representative
- Automatic Transmission Technician
- Wheel Alignment/Suspension Technician
- Maintenance Technician

- Fleet Maintenance Supervisor/Technician
- Heavy Equipment Maintenance Technician

CAREER OUTLOOK:

- The U.S. Department of Labor cites a strong demand for qualified automotive technicians and master technicians.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Ford Motor Company
- Chrysler Corporation
- Toyota (Lexus Division)
- General Motors Corporation
- Sears
- Firestone Tire Company
- Goodyear Tire Company
- NAPA Auto Parts
- Snap-On Tools Corporation
- Taylor Rental Corporation
- Troyer Race Car Engineering
- Various dealerships throughout NYS
- Many graduates own their own businesses.

TRANSFER OPPORTUNITIES:

- SUNY Utica/Rome, Oswego
- Indiana State University

ARTICULATION:

- Applicants who have completed a two-year vocational-technical automotive program may qualify for advanced standing (transfer credit).

ADMISSION REQUIREMENTS:

- Students must be qualified to enter Applied College Mathematics (MATH 101)

PROGRAM REQUIREMENTS:

(Curriculum 0525)

Semester I	Credits
FYEP 101 First Year Experience.....	1
AUTO 101 Automotive Services	2
AUTO 104 Basic Welding	2
AUTO 111 Automotive Services Laboratory	1
AUTO 112 Automotive Electrical Systems	3
AUTO 122 Automotive Electrical Syst. Lab.	1
ENGL 102 Oral and Written Expression	3
MATH101 Applied College Mathematics	3
	<u>16</u>

Semester II	
AUTO 113 Engine Performance I	3
AUTO 114 Engine Performance I Laboratory	1
AUTO 141 Automotive Braking Systems	3
AUTO 144 Auto. Braking Systems Lab.	1
MECH 121 Manufacturing Processes I	3
PHYS 115 Basic Physics **	4
CHOOSE ONE:	
AUTO 102 Diesel Engines	2
AUTO 103 Automotive Air Conditioning.....	2
	<u>17</u>

Semester III	
AUTO 213 Engine Performance II.....	4
AUTO 220 Internal Combustion Engines *	4
AUTO 225 Manual Transmissions and Drivetrain	3
AUTO 241 Suspension Design and Services.....	2
AUTO 282 Suspension Design and Serv. Lab.....	1
Elective.....	3
	<u>17</u>

Semester IV	
AUTO 212 Automotive Electrical Systems II	4
AUTO 214 Automotive Computer Systems	3
AUTO 230 Service Mgt. and Operations	1
Business Elective.....	3
Humanities Elective.....	3
Social Science Elective	3
	<u>17</u>

* Fulfills writing intensive requirement.

**Other four credit hour laboratory science courses may be substituted with permission of the advisor from a list of approved course offerings.

NOTE: Automotive Technology students must successfully complete the SUNY Canton computer competency requirement.

ADDITIONAL GRADUATION REQUIREMENTS

Students must complete 11 credit hours that include AUTO 113, AUTO 114, AUTO 213, and AUTO 214 at SUNY Canton. Student's transfer records must be reviewed and approved by the Program Director.

Business Administration—AS, AAS

STUDENTS IN THIS MAJOR:

- Obtain a viable business background for immediate employment and/or transfer to a four-year program.
- Learn principles of business, accounting, and economics.

CAREER OPPORTUNITIES:

- Assistant Manager
- Advertising Representative
- Sales Representative
- Supervisor
- Customer Service Representative

CAREER OUTLOOK:

- With the importance of technology in the global economy, business positions are anticipated to increase through the year 2010.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Community Bank
- Consumer Marketing Service
- Wal-Mart
- Ward Real Estate
- American Red Cross
- Malone Telegram
- Self-employed (oil company)
- J. Riggings
- Kaman Industrial Technologies
- C. E. Brooks Investments
- New York State
- Mid-Valley Oil Company
- Cohoes Fashions

TRANSFER OPPORTUNITIES:

- Eligible students may enroll in one of SUNY Canton's four-year business or management programs.

ADMISSION REQUIREMENTS:

- Students must be prepared to take Expository Writing (ENGL 101).

PROGRAM REQUIREMENTS:

AS DEGREE—TRANSFER PROGRAM (CURRICULUM 0671)

Semester I	Credits
ACCT 101 Foundations of Financial Accounting	4
BSAD 201 Business Law I	3
ECON 101 Macroeconomics	3
ENGL 101 Expository Writing	3
FYEP 101 First Year Experience.....	1
Mathematics* (GER 1).....	3-4
	<u>17-18</u>

Semester II	Credits
ACCT 102 Foundations of Managerial Accounting.....	3
CITA 110 Intro. to Information Technology	3
ECON 103 Microeconomics	3
Humanities Elective (GER 7)	3
Mathematics* (GER 1).....	3-4
	<u>15-16</u>

Semester III	Credits
FSMA 210 Introduction to Finance.....	3
BSAD 200 Business Communications**	3
Program Elective.....	3
Science Elective (GER 2).....	3-4
GER (4, 5, 6, 8, 9)	3
	<u>15-16</u>

Semester IV	Credits
Program Elective	3
Program Elective	3
GER (4, 5, 6, 8, 9)	9-10
	<u>15-16</u>

* *College Algebra (MATH 121), Survey of Mathematics (MATH 111), Calculus (MATH 161), and Statistics (MATH 141).*

** *Fulfills writing intensive requirement.*

GER = General Education Requirement

Program Electives: ACCT, BSAD, ECON, FSMA, or MINS

AAS DEGREE (CURRICULUM 632)

Semester I	Credits
ACCT 101 Foundations of Financial Accounting.....	4
BSAD 100 Intro. to Business	3
ECON 101 Macroeconomics.....	3
ENGL 101 Expository Writing	3
FYEP 101 First Year Experience.....	1
Mathematics*	3-4
	<u>17-18</u>

Semester II	Credits
ACCT 102 Foundations of Managerial Accounting.....	3
CITA 110 Intro. to Information Technology	3
ECON 103 Microeconomics	3
Humanities Elective (GER 7)	3
Mathematics* (GER 1).....	3-4
	<u>15-16</u>

Semester III	Credits
BSAD 200 Business Communications**	3
BSAD 201 Business Law I.....	3
Program Elective.....	3
GER (2, 4, 5, 6, 8, 9) OR	
General Electives	6
	<u>15</u>

Semester IV	Credits
FSMA 210 Introduction to Finance.....	3
Program Elective.....	6
General Elective	3
GER (2, 4, 5, 6, 8, 9) OR	
General Elective.....	3
	<u>15</u>

**Intermediate Algebra (MATH 106), College Algebra (MATH 121), Survey of Mathematics (MATH 111), Calculus (MATH 161), Math of Finance (MATH 108), and Statistics (MATH 141).*

** *Fulfills writing intensive requirement.*

GER = General Education Requirement

Program Electives: ACCT, BSAD, ECON, FSMA, LEST, or MINS

NOTE: Business Administration, AS and AAS students must successfully complete the SUNY Canton computer competency requirement.

Civil Engineering Technology–AAS

Graduates of the Civil Engineering Technology program receive the Associate of Applied Science degree which enables them to go directly to work or transfer into a bachelor's degree program. Satisfying and well-paying career options may be primarily office-based (drafting and design) or field-based (surveying, inspection, and construction management). In addition to the wide variety of career opportunities, graduates may pursue a baccalaureate degree (Industrial Technology Management at SUNY Canton or elsewhere). The technical classes feature laboratory experiences emphasizing hands-on learning.

STUDENTS IN THIS MAJOR:

- Are prepared to meet the career challenges of the civil engineering and construction industries.
- Receive extensive, practical hands-on experience in well-equipped laboratories.
- Learn computer drafting and design with AutoCAD.
- Participate with remarkable success in a national collegiate competition for building steel bridges.
- Solve problems in structural analysis and design.
- Utilize state-of-the-art surveying equipment and prepare topographic maps.
- Perform laboratory tests on concrete, steel and soil.

CAREER OPPORTUNITIES:

- Structural Steel Designer, Drafter, Estimator
- Surveyor
- Construction Superintendent
- Construction Inspector
- Materials Technician
- Environmental Technician
- Salesperson
- Residential/Commercial Contractor
- General Contractor

CAREER OUTLOOK:

- Nearly 100% of graduates willing to relocate/travel are able to establish civil engineering or construction-related careers that offer opportunity for advancement.
- Those who obtain a bachelor's degree can expect additional opportunity and reward.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- NYS Department of Transportation
- Atlantic Testing Laboratories
- Jefford's Steel & Engineering
- CIVES Steel Corp.
- Tuscarora Construction
- Northeast Construction Services, Inc.
- POPLI Engineering
- NC Dept. of Transportation
- Advanced Testing Labs
- Barrett Paving
- Northland Construction
- Delaney Construction
- Stebbins Engineering

TRANSFER OPPORTUNITIES:

- SUNY Canton's Alternative & Renewable Energy Systems, and Industrial Technology Management programs
- SUNY Utica/Rome (Civil Engineering Technology-BCET)
- SUNY ESF at Syracuse University (BS - Construction Management)
- Rochester Institute of Tech. (BCET)
- SUNY Alfred (BET - Surveying, Construction Management)

ACCREDITATION:

- Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 – Telephone (410) 347-7700.

ADMISSION REQUIREMENTS:

- Students must be qualified to enter College Algebra (MATH 121)

Students who do not meet the recommended high school math prerequisites may still be admitted to the College, but completing the program may require more than two years.

PROGRAM REQUIREMENTS: (Curriculum 0517)

Semester I	Credits
CONS 101 Elementary Surveying.....	4
CONS 115 Intro. to Computer Drawing.....	1
MATH 123 Pre-Calculus Algebra.....	4
SOET 110 Computer Applications for Tech.....	2
PHYS 121 College Physics I.....	3
PHYS 125 Physics Lab I.....	1
	16

Semester II	Credits
CONS 122 Hydraulics.....	4
CONS 132 Construction Drafting.....	3
ENGL 102 Oral and Written Expression.....	3
MATH 161 Calculus I.....	4
PHYS 122 College Physics II.....	3
PHYS 126 Physics Lab II.....	1
	18

Semester III	Credits
CONS 203 Advanced Surveying.....	4
CONS 214 Soil Mechanics*.....	4
CONS 263 Structural Mechanics.....	4
CONS 273 Structural Mechanics Laboratory.....	1
English (Literature).....	3
Computer Elective.....	1
	17

Semester IV	Credits
CONS 204 Reinforced Concrete Design.....	4
CONS 224 Structural Steel Design.....	4
CONS 274 Construction Management.....	3
Social Science Elective.....	3
	14

** Fulfills writing intensive requirements.*

NOTE: Civil Engineering Technology students must successfully complete the SUNY Canton computer competency requirement.

ADDITIONAL GRADUATION REQUIREMENTS

Students transferring a significant number of credits from outside must complete the designated "Capstone" course at SUNY Canton, and the student's transfer records must have been reviewed and approved by the CET Program Director.

Computer Information Systems—AAS

Computer Information Systems (CIS) students develop abilities for working with computer systems, databases, networks, and web development. Qualified graduates also have the opportunity of completing a four-year program in Information Technology with two additional years of study earning a Bachelor of Technology degree.

STUDENTS IN THIS MAJOR:

- Develop the knowledge and experience for a successful career in the computer industry.
- Develop teamwork skills throughout the program.
- Enhance their skill sets by opportunities to electives of interest.
- Acquire hands-on experience in small, well-equipped laboratories.
- Work with qualified faculty in small class sizes solving real-world problems.

CAREER OPPORTUNITIES:

- Junior Programmers
- Network technician/administrator
- Systems Manager
- Technical Representative
- Web Developer
- Help Desk Manager

CAREER OUTLOOK:

- Computer Information Systems is expected to continue as a strong growth area for career opportunities.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- SUNY Canton
- Clarkson University
- Fused Solutions
- Canton-Potsdam Hospital
- St Lawrence-Lewis County BOCES
- Eclipsys
- IBM
- Corning, Inc.

TRANSFER OPPORTUNITIES:

- SUNY Canton: Information Technology and Industrial Technology Management
- SUNY Plattsburgh: Information Technology

ADMISSION REQUIREMENTS:

- Students must be qualified to enter at least Intermediate Algebra (MATH 106) and Oral and Written Expression (ENGL 102).
- High school chemistry and physics courses are recommended.
- High school computer technology courses are strongly recommended.
- Transfer students must have a minimum of 2.5 GPA.

Students who do not meet necessary pre-requisites may be admitted to the college. However, completing the program may require more than two years.

PROGRAM REQUIREMENTS:

(Curriculum 0581-01)

Semester I		Credits
BSAD 100	Introduction to Business.....	3
CITA 163	Survey of Information Technology....	3
CITA 152	Computer Logic	3
ENGL 102	Oral and Written Expression OR	
ENGL 101	Expository Writing	3
	Mathematics Elective.....	3
		15

Semester II		
CITA 170	Computer Concepts & Operating Systems.....	3
CITA 171	Operating System Fundamentals	3
CITA 202	Computer User Support*.....	3
	Math/Science Elective ²	3
SPCH 104	Introduction to Speech	3
		15

Semester III		
CITA 220 ¹	Data Communications and Network Technology	3
CITA 221	Data Communications and Network Technology Lab ¹	1
ACCT 104	Survey of Accounting ⁶	4
ECON 101	Macroeconomics OR	
ECON 103	Microeconomics	3
	Program Electives ^{1,5}	6
		17

Semester IV		
CITA 250	Information Security ¹	3
	Social Science Elective ⁷	3

Program Elective ^{1,5}	3
General Electives ^{1,2,3,4}	6
	15

* Fulfills writing intensive requirement.

NOTE: Computer Information Systems students must successfully complete the SUNY Canton computer competency requirement.

Although there are several modern well-equipped computer labs on campus, it is expected each student has a personal computer.

1. Any CITA course presented for meeting degree requirements must have a grade of at least C (or transfer credit). No more than 3 CITA credits with a course number below CITA110 may receive credit towards graduation.
2. CIS minimum requirement is MATH 106 Intermediate Algebra. MATH 121 College Algebra and MATH 141 Statistics are required in B. Tech. IT Program.
3. A general elective is any course for which the student has the appropriate pre-requisites; see note 1 above however.
4. Students pursuing a baccalaureate degree should select courses from the following GER areas when feasible. GER 2 Science (CHEM 107/108 Investigative Chemistry/ Lab recommended), GER4 American History; GER 5 Western Civilization; GER 6 Other World Cultures; GER 7 Humanities; GER 8 The Arts; or GER 9 Foreign Language.
5. Program Electives are from Canino School of Engineering Technology, the Business Department (including ACCT 102) and the Graphics and Multimedia Design Department. Students who plan to pursue the B. Tech. in Information Technology should include CITA 180 Introduction to Programming, CITA 204 Systems Analysis and Design, and CITA 215 Database Systems with Web Applications.
6. ACCT 101 Foundations of Financial Accounting is recommended for students interested in accounting or a business minor or major. MATH121 College Algebra is the lowest level mathematics course accepted in the B. Tech. Information Technology major.
7. Students interested in pursuing the B. Tech. IT degree should choose the social science course General Education Requirement areas 4, 5 or 6.

ADDITIONAL GRADUATION REQUIREMENTS

Each CITA/MINS/SOET course used to meet graduation requirements must have a grade of "C" or higher. A transfer student must complete at least two CITA/MINS/SOET courses (six credit hours) numbered 200 or above which are applicable to the degree.

Construction Technology: Management—AAS

This program prepares students for careers in construction by blending hands-on construction skills with project planning, management and accomplishment skills. Students are also exposed to accounting, bidding, drafting, and business organization and management. Graduates with the Construction Technology: Management, AAS (Associate of Applied Science) degree have the option of completing a four-year degree with two more years of study; Industrial Technology Management (B. Tech.) is one possible track.

STUDENTS IN THIS MAJOR:

- Learn fundamental construction techniques through hands-on experience.
- Conduct construction material testing (eg: steel, soils, concrete) using industry-standard equipment.
- Experience an academic program that blends the fields of construction, business, and management.
- Develop computer software skills, project scheduling techniques, and construction methods utilized in the management of construction projects.

CAREER OPPORTUNITIES:

- Construction Project Manager Assistant
- Estimator
- Project Planning and Scheduling
- Construction Equipment Salesperson
- Residential Contractor

- Commercial Contractor
- Purchasing Agent
- Code Enforcement Officer
- Insurance Adjustor

CAREER OUTLOOK:

- Career opportunities currently exist at all levels of the construction industry.
- Infrastructure rehabilitation should maintain the need for construction technicians and assistant project managers.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Op Tech Environmental Management
- Barrett Paving Materials Inc.
- Northeast Construction Services
- Tuscarora Construction
- Jeffords Steel Inc.
- Many small construction companies

TRANSFER OPPORTUNITIES:

- SUNY Canton (B. Tech. in Industrial Technology Management)
- SUNY Alfred (BS, BT in Construction Management)

ADMISSION REQUIREMENTS:

- Students must be qualified to enter Intermediate Algebra (MATH 106)

Students who do not meet the recommended high school math prerequisites may still be admitted to the College, but completing the program may require more than two years.

PROGRAM REQUIREMENTS:

(Curriculum 1162)

Semester I	Credits
SOET 110 Computer Applications for Technicians.....	2
CONS 112 Wood Structures.....	3
CONS 115 Intro. to Computer Drawing.....	1
BSAD 100 Business Organization & Management	3
ENGL 102 Oral and Written Expression	3
MATH 106 Intermediate Algebra	3
	15

Semester II	Credits
CONS 111 Commercial Structures	3
CONS 132 Construction Drafting.....	3
BSAD 201 Business Law I.....	3
ACCT 101 Accounting Principles.....	4
MATH 121 College Algebra	4
	17

Semester III	Credits
CONS 101 Elementary Surveying.....	4
CONS 222 Construction Estimating	2
CONS 253 Concrete Technology	3
CITA 104 Introduction to Database.....	1
PHYS 115 Basic Physics.....	4
Business Elective.....	3
	17

Semester IV	Credits
CONS 274 Construction Management.....	3
CONS 294 Soil Investigation *	3
Business or Construction Elective.....	3
Humanities Elective.....	3
Soc. Science Elective (ECON 101 or 103 recommended).....	3
	15

** Fulfills writing intensive requirement.*

NOTE: Construction Technology: Management students must successfully complete the SUNY Canton computer competency requirement.

ADDITIONAL GRADUATION REQUIREMENTS

Students must have completed a minimum of nine CONS credits at SUNY Canton. Student transfer records must be reviewed and approved by the program director.

Criminal Justice—AAS

STUDENTS IN THIS MAJOR:

- Acquire the basic knowledge of law enforcement and corrections.
- Have an opportunity to develop physical skills, including tactics of arrest and investigation, self-defense, and first aid.

CAREER OPPORTUNITIES:

- Federal Law Enforcement Agent
- Police Officer
- Probation or Parole Officer
- Corrections Officer

CAREER OUTLOOK:

- U.S. Department of Labor forecasts faster than average growth for protective service occupations through the year 2016.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Federal Bureau of Investigations (FBI)
- Secret Service
- U.S. Border Patrol
- U.S. Customs
- New York State Department of Environmental Conservation
- New York State Public Police
- New York State Police
- New York Department of Corrections
- Military Police of the Armed Forces
- United States Air Force
- United Parcel Service
- Pinkerton Security
- Sheriff's Department
- Municipal Police Departments

TRANSFER OPPORTUNITIES:

- Fifty to sixty percent of AAS graduates seek baccalaureate degrees. Most of those students remain at SUNY Canton and pursue the Criminal Investigation baccalaureate.

ADMISSION REQUIREMENTS:

- Students must be prepared to take Intermediate Algebra (MATH 106)
- Students must be prepared to take Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102).
- Transfer students must have at least a 2.0 GPA.

PROGRAM REQUIREMENTS:

(Curriculum 0640)

Semester I	Credits
JUST 101 Intro. to Criminal Justice.....	3
ENGL 101 Expository Writing OR	
ENGL 102 Oral & Written Expression.....	3
CITA 110 Intro. to Information Technology	3
MATH 106 Intermediate Algebra ¹	3
PSYC 101 Introductory Psychology.....	3
	<u>15</u>

Semester II	Credits
JUST 105 Correctional Philosophy	3
JUST 110 Criminal Law	3
SOCI 101 Introduction to Sociology	3
Humanities Elective (GER 7)	3
Natural Science w/Lab (GER 2) ...	3-4
	<u>15-16</u>

EMPHASIS A: Law Enforcement

Semester III	Credits
JUST 111 Criminal Procedure	3
JUST 201 Critical Issues in Crim. Justice *	3
JUST 209 Law Enforce. Communications	3
American History Elective (GER 4)...	3
General Elective.....	3
	<u>15</u>

Semester IV	Credits
JUST 203 Criminal Investigation	3
JUST 207 Police Services.....	3

JUST 210 Forensic Investigations.....	3
General Elective ²	3
General Elective.....	3
	<u>15</u>

OR

EMPHASIS B: Corrections Professions

Semester III

JUST 111 Criminal Procedure	3
JUST 201 Critical Issues in Crim. Justice *	3
JUST 211 Diagnostic Eval of Offender	3
American History Elective (GER 4)...	3
General Elective ²	3
	<u>15</u>

SEMESTER IV

JUST 215 Community Based Corrections	3
Program Electives	6
PSYC 275 Abnormal Psychology	3
SSCI 181 Alcohol Drugs & Society	3
	<u>15</u>

OR

EMPHASIS C: Criminal Justice Generalist

Semester III

JUST 111 Criminal Procedure	3
JUST 201 Critical Issues in Crim. Justice *	3
JUST 209 Law Enforce. Communications OR	
JUST 211 Diagnostic Eval of Offender	3
American History Elective (GER 4)...	3
General Elective.....	3
	<u>15</u>

SEMESTER IV

Program Electives	9
General Elective ²	3
General Elective.....	3
	<u>15</u>

* Fulfills writing intensive requirement.

GER = General Education Requirement

¹ Intermediate Algebra (MATH 106) is the minimum level acceptable toward AAS degree (non-transferable to a bachelor program). Survey of Mathematics (MATH 111) or College Algebra (MATH 121) is minimum for B.Tech. degrees.

² Students planning to enter one of the bachelor's degree programs should take a GER. These students must have seven (7) GERs.

NOTE: Criminal Justice students must successfully complete the SUNY Canton computer competency requirement.

Dental Hygiene—AAS

STUDENTS IN THIS MAJOR:

- Perform all phases of dental hygiene care, including assessment, planning, implementation, and evaluation, based on accepted scientific theories and research.
- Are prepared to provide the services outlined in the NYS Dental Hygiene Practice Act under the direct supervision of a dentist.
- Develop skills to communicate effectively, professionally and respectfully with their peers, the faculty, staff, other health care professionals, and their patients in the clinic and during community and professional presentations.
- Maintain patient confidentiality and provide therapeutic interventions with cultural sensitivity and without discrimination.
- Develop critical thinking skills and are prepared to pass the National Dental Hygiene Exam and the Northeast Regional Board with 75% proficiency.
- Are expected to conform with the ADHA's Professional Code of Ethics while attending all classes, labs/clinics and when completing projects within the community.

CAREER OPPORTUNITIES:

- Private dental offices
- Hospital dental clinics
- Military installations
- Nursing homes, residential assisted living facilities, and rehabilitation centers
- Pharmaceutical sales
- County and state health departments
- School-based oral health programs

ACCREDITATIONS:

- The American Dental Association (ADA) Commission on Dental Accreditation (CODA), 211 East Chicago Avenue, Chicago, IL 60611, 312-440-2547 (<http://www.ada.org>).

- The program is also registered with the NYS Education Department, Office of Professions.

ADMISSIONS REQUIREMENTS:

- Admission is selective based on academic credentials. Applicants must have a minimum grade of 75 in Regents-level biology, chemistry, geometry/Math A plus one year; or a C grade in equivalent college-level courses. A committee will review and rank qualified applicants beginning in early February.
- Applicants must have a high school diploma or its equivalent.
- Applicants not meeting the prerequisites may enroll in a preparatory curriculum at SUNY Canton. Once all pre-requisite courses are completed, with a minimum "C" grade or higher and an overall GPA of 2.75, the student may apply for admission into the Dental Hygiene Program.

PROGRAM REQUIREMENTS:

(Curriculum 0545)

Semester I	Credits
BIOL 217 Anatomy & Physiology I	4
DHYG 145 Dental Radiology.....	3
DHYG 155 Infection Control	1
DHYG 156 Oral Anatomy	2
DHYG 140 Pre-Clinical Dental Hygiene Theory	2
DHYG 141 Pre-Clinical Dental Hygiene	2
DHYG 161 Histology & Embryology	1
ENGL 102 Oral & Written Expression.....	3
	18

Semester II	Credits
BIOL 218 Anatomy & Physiology II.....	4
BIOL 209 Microbiology.....	4
DHYG 160 Dental Pathology.....	2
DHYG 150 Dental Hygiene Theory I.....	2
DHYG 151 Clinical Dental Hygiene I.....	2
DHYG 159 Dental Health Education.....	2
DHYG 147 Head & Neck Anatomy.....	2
DHYG 190 Radiographic Interpretation.....	1
	19

Semester III	Credits
DHYG 215 Pain Management.....	1
DHYG 220 Periodontology	2
DHYG 221 Dental Pharmacology	2
DHYG 240 Dental Materials.....	2
DHYG 241 Dental Materials Lab	1
DHYG 250 Dental Hygiene II Lecture/Lab.....	2
DHYG 251 Clinical Dental Hygiene II	3

DHYG 256 Medical Emergencies	1
ANTH 102 Intro. to Cultural Anthropology	3
	17

Semester IV

DHYG 260 Community Dental Health*	2
DHYG 270 Clinical Dental Hygiene III.....	4
DHYG 263 Dental Nutrition	2
DHYG 280 Ethics & Jurisprudence.....	1
DHYG 285 Sophomore Seminar	1
DHYG 290 Special Needs.....	1
PSYC 101 Introduction to Psychology.....	3
SOCI 101 Introduction to Sociology.....	3
	17

* Fulfills writing intensive requirement

NOTE: Dental Hygiene students must successfully complete the SUNY Canton computer competency requirement.

- A grade of "C" (75) or better is required for all DHYG courses and a grade of "C" or better is required in BIOL courses to continue in the program.
- Once matriculated into the Dental Hygiene, AAS students must complete the program within 4 years.
- A DHYG and/or BIOL course may only be repeated one time before losing matriculation in the program. A withdrawal is considered one attempt. If the student fails a second time, he/she will lose matriculation in the program and will be required to apply as a new applicant. The applicant is expected to begin as a first semester freshman and will be evaluated using selection criteria.
- Students dismissed from the program must re-apply and will be evaluated using the selection criteria and will be considered on a space available basis.
- Transcripts for students wishing to transfer from another ADA accredited dental hygiene program will be evaluated on an individual basis. Students are required to provide course descriptions and a list of course requirements to aid in this evaluation. If it is determined that the course is equivalent to that offered at SUNY Canton, credit will be awarded.
- Students must have CPR certification (Health Provider Status) prior to entering DHYG 141: Pre-Clinic; and all students must complete a NYS certified child abuse course as part of DHYG 280 Ethics & Jurisprudence
- Although the program has a patient coordinator that assists in the scheduling of patients, the Dental Hygiene student is ultimately responsible for finding new patients and treating a diverse group of patients. Students are also responsible for seeking transportation to and from all off-campus clinical rotations.
- For additional information, please see the website.

Applicants for NYS licensure must be a U.S. citizen or an alien lawfully admitted for permanent residency in the U.S. The applicant must also be of good moral character. Anyone convicted of a crime or who has committed an act which raised question as to his/her moral character will be subjected to review by the State. SUNY Canton strongly encourages anyone with a prior conviction to contact the Office of Professional Discipline. Completion of coursework does not guarantee NYS License. For additional information, you can visit the NYS Education Department, Office of Professions website at www.op.nysed.gov/dent.htm.

Residency Requirement: Students must complete Dental Hygiene II (DHYG 250/251) and Clinical Dental Hygiene III (DHYG 270)

Early Childhood—AS

STUDENTS IN THIS MAJOR:

- Participate in student teaching field-based experiences in various child care environments including: Head Start Programs, Universal Pre-K, and Kindergarten Public School Classrooms, Child Care Centers, Family Child Care Provider Homes, Nursery, and Pre-School settings.
- Enroll in a course of study offering 12 courses specific to Early Childhood Education along with general liberal arts courses leading to an Associate of Science degree.
- Take part in professional development opportunities offered through seminars, workshops and our Annual Early Childhood Conference, held every fall on our campus.
- Acquire practical experiences in our Maria Sergi Early Childhood Teacher Center.
- Prepare for rewarding careers in Early Care and Education or transfer to 4-year Teacher Ed. Degree Programs.

CAREER OPPORTUNITIES:

- Pre-School and Child Care Center Lead Teacher, Assistant Teacher
- Public School: Teacher Assistant
- Head Start: Lead Teacher, Asst. Teacher
- Self Employed: Child Care or Nursery School Owner
- Family Child Care Center Provider

CAREER OUTLOOK:

- U.S. Department of Labor lists Pre-School Teachers among the 10 large-growth occupations through 2012.
- Certification requirements are increasing for Early Care and Education providers. Associate and Bachelor Degrees will be necessary to work in child care facilities and Head Start programs by 2013.
- Changes in society and the workforce demand an increase in the availability of high-quality early child care and education options for families and children

from infancy to pre-kindergarten.

TRANSFER OPPORTUNITIES:

- SUNY Cobleskill*
- SUNY Plattsburgh* (Child and Family Services)
- SUNY Oneonta (Child Development and Family Studies)
- SUNY Cortland
- SUNY Brockport

* *Articulation agreements in effect.*

ADMISSION REQUIREMENTS:

- Students must meet entrance requirements and be eligible for enrollment in: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102).
- Students must be eligible for enrollment in Intermediate Algebra (MATH 106) in the first semester, or be eligible for enrollment in a college-level math course (MATH 111 or MATH 121).
- Transfer students must have a minimum 2.0 GPA for admittance to the ECHD major.
- Students who do not meet ECHD admission requirements may enroll in preparatory courses. Student must pass all preparatory courses and have a minimum 2.0 GPA for admittance to ECHD program.
- Graduates of St. Lawrence-Lewis Counties BOCES and Franklin-Essex-Hamilton Counties BOCES Early Childhood Occupations programs may be eligible for 1–6 college credits toward the Early Childhood Program at SUNY Canton.

PROGRAM REQUIREMENTS:

- Students must receive a minimum 2.5 (C+) in Student Teaching Experience I (ECHD 201) to enroll in Student Teaching Experience II (ECHD 202).
- All Early Childhood students must agree

to be fingerprinted as part of a criminal background check mandated by the NYS Office of Children & Families.

- Students are required to complete courses in Identification of Child Abuse & Neglect, First Aid, and CPR.
- Early Childhood students must have evidence of a recent physical exam and updated immunizations.
- For field-based experiences (ECHD 201 & ECHD 202) students will need to arrange for transportation to their assigned placement sites.

AS DEGREE (CURRICULUM 1327)

Semester I	Credits
ECHD 101 Introduction to Early Childhood.....	3
ENGL 101 Expository Writing	3
PSYC 101 Introduction to Psychology.....	3
SOCI 101 Introduction to Sociology.....	3
FYEP 101 First Year Experience.....	1
Science Elec. w/lab (GER 2)**.....	3-4
	16-17

Semester II	
ECHD 123 Student Teaching Orientation.....	1
ECHD 125 Curriculum Development	3
ECHD 131 Infants and Toddlers	3
ENGL 216 Children's Literature	3
PSYC 220 Child Development.....	3
Math Elective (GER 1)**.....	3
	16

Semester III	
ECHD 201 Student Teaching Experience I w/Seminar	4
ECHD 121 Wellness in Young Children.....	3
ECHD 250 Children with Special Needs.....	3
SOCI 210 Sociology of the Family	3
History Elective (GER 4, 5 or 6)	3
	16

Semester IV	
ECHD 202 Student Teaching Experience II w/Seminar	6
ECHD 200 Planning Prog. for Young Children...	3
ECHD 285 Iss. & Policies in Early Care & Ed.*..	3
Arts Elective (GER 8)	3
General Elective (GER 1-9).....	3
	18

* *Fulfills writing intensive requirement.*

** *One college-level mathematics course (Survey of Math or College Algebra recommended) and one science course with a lab are required.*

GER = General Education Requirement

NOTE: Early Childhood students must meet seven out of ten General Education Requirements and successfully complete the SUNY Canton computer competency requirement.

Electrical Engineering Technology—AAS

The Electrical Engineering Technology (EET) program prepares students for a wide range of opportunities ranging from manufacturing and defense to power generation and computing. At completion, graduates receive the Associate in Applied Science degree and have considerable flexibility for continuing their education or commencing their career directly. Math skills and an interest in science are expected, and the student will receive extensive hands-on experience in a small class setting. Graduates can continue in the four year EET program (B. Tech.)(Pending approval) or other baccalaureate programs such as: Alternative & Renewable Energy Systems (B.Tech.) and Industrial Technology Management (B. Tech.). Students also transfer credit for pursuing baccalaureate degrees at other institutions.

STUDENTS IN THIS MAJOR:

- Utilize their computer in all of the major courses to enhance employability upon graduation.
- Acquire hands-on experience with programmable controllers, motors, generators, electrical power systems, industrial electronics, communications, and other related areas.
- Study under experienced faculty members in small class settings.
- Are recommended to have a laptop computer during their senior year.

CAREER OPPORTUNITIES:

More than 90% of the graduates go directly into positions like:

- Project Control Technician
- Electronic Maintenance Technician
- Production Technician
- Field Service Technician
- Systems Test Technician
- Quality Assurance Technician
- Field Project Technician
- Instrumentation Technician
- Power Technician
- Communications Technician

CAREER OUTLOOK:

- The demand for Electrical Engineering Technicians is immense. There simply are not enough qualified technicians entering the market place, and a large number of working technicians are approaching retirement age.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Brookfield Power
- Novelis
- Schlumberger
- Siemens
- National Grid
- ALCOA
- Schneider Packing Equipment
- Corning
- New York Power Authority
- IBM
- C & S Engineers, Inc.
- NYSEG
- Verizon

TRANSFER OPPORTUNITIES:

- SUNY Canton: B. Tech in Electrical Technology, Alternative & Renewable Energy Systems, and Industrial Technology Management
- Rochester Institute of Technology
- SUNY Institute of Technology
- SUNY Alfred

ACCREDITATION:

- Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 – Telephone (410) 347-7700.

ADMISSION REQUIREMENTS:

- Students must be qualified to enter Pre-Calculus Algebra (MATH 123)
- Students who do not meet the required high school mathematics prerequisites

may still be admitted to the College, but they will have to complete all mathematics requirements before admission to this program.

PROGRAM REQUIREMENTS:

(Curriculum 0699)

Semester I	Credits
ELEC 101 Electric Circuits 1	3
ELEC 109 Electric Circuits 1 Laboratory.....	1
ELEC 111 Digital Circuits.....	2
ELEC 161 Electronic Fabrication.....	2
ENGS 102 Programming for Engineers.....	2
ENGL 102 Oral and Written Expression	3
MATH 123 Pre-Calculus Algebra	4
	17

Semester II	Credits
ELEC 102 Electric Circuits 2.....	3
ELEC 129 Electric Circuits 2 Laboratory.....	1
ELEC 141 Industrial Controls	2
ELEC 212 Digital Systems.....	2
ELEC 219 Digital Systems Laboratory.....	1
English (Literature).....	3
MATH 161 Calculus I	4
	16

Semester III	Credits
ELEC 231 Electronic Circuits.....	4
MECH 111 Computer Drafting	3
ELEC 213 Microprocessors *	3
ELEC 215 Electrical Energy Conversion	4
PHYS 121 College Physics I.....	3
PHYS 125 Physics Lab I	1
	18

Semester IV	Credits
ELEC 203 Engineering Technology Project.....	1
ELEC 225 Telecommunications.....	3
ELEC 232 Industrial Electronics.....	4
ELEC 243 Automated Control Systems	2
PHYS 122 College Physics II	3
PHYS 126 Physics Lab II	1
Social Science Elective	3
	17

* Fulfills writing intensive requirement.

NOTE: Electrical Engineering Technology students must successfully complete the SUNY Canton computer competency requirement.

ADDITIONAL GRADUATION REQUIREMENTS

Students transferring in Electrical 200 level courses must complete a minimum of 12 credits of 200 level courses contained in the current Electrical Engineering Technology curriculum earning a minimum GPA of 2.0 for all such credits taken.

Engineering Science—AS

The Engineering Science program prepares its graduates to complete a baccalaureate engineering degree with another two years of study. Applicable areas include mechanical, electrical, civil, and aeronautical engineering. A key difference with Engineering Science, as differentiated from other programs in the Canino School of Engineering Technology, is that this program provides a strong theoretical preparation rooted in calculus for students who seek to prepare for engineering design responsibilities. Graduates perform exceptionally well when transferring to engineering schools such as Clarkson, Cornell or RPI.

STUDENTS IN THIS MAJOR:

- Complete their first two years at SUNY Canton and then transfer to a four-year engineering school to complete their baccalaureate degree.
- Interact with faculty on a daily basis because of small class sizes.
- Are accepted by most four-year engineering schools with full junior status.
- Have the benefit of SUNY Canton's membership in the SUNY Two-Year Engineering Science Association (TYESA) of New York State. This membership assures that SUNY Canton's Engineering Science program is rigorous and allows for smooth transfer to four-year schools.

CAREER OPPORTUNITIES:

After transferring to and graduating from a four-year school, any engineering career is possible. Typical opportunities include:

- Aeronautical Engineer
- Civil Engineer

- Computer Engineer
- Electrical Engineer
- Engineering Management
- Mechanical Engineer

CAREER OUTLOOK:

- There are favorable job opportunities for engineering-related positions.
- Employment opportunities in engineering have been good for a number of years and are expected to continue.

TRANSFER OPPORTUNITIES:

In recent years, Engineering Science students have transferred to:

- Carnegie Mellon University
- Clarkson University
- Cornell University
- Florida Institute of Technology
- Northeastern University
- Pennsylvania State University
- Rensselaer Polytechnic Institute
- SUNY Binghamton
- SUNY Buffalo
- Syracuse University
- University of Massachusetts
- University of North Carolina

ADMISSION REQUIREMENTS:

- Students must be qualified to enter Calculus I (MATH 161)

PROGRAM REQUIREMENTS:

(Curriculum 0530)

This program has been granted a SUNY General Education waiver which allows the program to require only five General Education Requirements. Care must be taken to select courses in areas which meet this requirement.

Semester I	Credits
ENGS 101 Introduction to Engineering	2
CHEM 150 College Chemistry I.....	4
English (Writing).....	3
MATH 161 Calculus I	4
PHYS 131 University Physics I	3
PHYS 125 Physics Lab I	1
	17

Semester II	Credits
ENGS 102 Programming For Engineers	2
CHEM 155 College Chemistry II	4
English (Literature).....	3
MATH 162 Calculus II.....	4
PHYS 132 University Physics II.....	3
PHYS 126 Physics Lab II	1
	17

Semester III	Credits
ENGS 201 Statics	3
ENGS 203 Engineering Strength of Materials (optional)	(3)
MATH 263 Calculus III	4
PHYS 133 University Physics III	3
PHYS 127 Physics Lab III.....	1
General Elective	3
	14 (17)

Semester IV	Credits
ENGS 202 Dynamics	3
ENGS 205 Nature & Properties of Materials.....	3
ELEC 263 Electric Circuits.....	3
ECON 103 Principles of Microeconomics.....	3
MATH 264 Differential Equations.....	3
	15

* Fulfills writing intensive requirement.

NOTE: Engineering Science students must successfully complete the SUNY Canton computer competency requirement.

General Technology–AAS

The General Technology (GT) curriculum serves needs of entering students in three broad ways. First, its curricular breadth and flexibility allows entering students to explore across a range of technology disciplines as they seek to identify a specific concentration path of interest. Second, GT enables students transferring from other academic programs or institutions to build upon academic work already accomplished. Third, this program is appropriate for students seeking a two-year degree in an unusual area of specialization for which dedicated programs may not conveniently exist (e.g. electronic testing, project planning & scheduling, quality control, plant operations & maintenance).

Graduates of this program may pursue employment upon graduation or continue their education with the pursuit of a subsequent baccalaureate (four-year) degree with a program such as Industrial Technology Management. This broad-based program is ideal for individuals with analytical capabilities seeking to pursue a path of study that serves the individual's particular interests well.

STUDENTS IN THIS MAJOR:

- Will have the flexibility to explore career interests in various technical disciplines.
- Will be able to focus their studies within their specific area(s) of interest.
- Will develop a strengthened preparation

in mathematics, science, and technology.

- Are able to build upon academic work already completed in other related areas.

CAREER OPPORTUNITIES:

Employment opportunities are broad for technology and span the range of industry and commerce. Because of the broad flexibility of this program, it is important for the student and academic advisor to carefully plan the selection of program electives that will best serve the career interests of the individual student. Opportunities in this market include:

- Manufacturing & Production
- Industrial Distribution
- Technical Sales and Services
- Pursuit of additional (four-year) education (e.g. Business, Information Technology, Industrial Technology Management)

ADMISSION REQUIREMENTS:

Incoming students will meet all general admission requirements as freshmen to SUNY Canton, having completed the NYS Geometry Regents or Math A plus one year. Transfer students will be evaluated individually by the program academic advisor. The mathematics requirements will ensure that entering students are prepared to commence studies at a minimum level of College Algebra (MATH 121) and College Physics I (PHYS 121).

PROGRAM REQUIREMENTS:

(Curriculum 2208)

Semester I	Credits
ENGS 101 Introduction to Engineering	2
MECH 111 Computer Drafting	3
ENGL101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
MATH 121 College Algebra **	4
PHYS 121 College Physics I	3
PHYS 125 Physics I Lab	1
	<u>16</u>
Semester II	
ENGS 102 Programming for Engineers	2
MECH 128 Electromechanical Technology	3
Social Science Elective	3
Math Elective**	4
Science Elective w/lab	4
	<u>16</u>
Semester III	
Program Elective***	9
Math Elective **	3
Humanities Elective	3
	<u>15</u>
Semester IV	
Program Electives***	12
General Elective.....	3
	<u>15</u>

* Fulfills writing intensive requirement.

** College Algebra (MATH 121) or equivalent, & at least one calculus course are required. Entering students who are unprepared to enroll in MATH121 or equivalent may require extra time to graduate.

*** Program Electives are to be selected with the approval of the student's academic advisor from the following disciplines: ACHP, AREA, ASTR, AUTO, CHEM, CITA, CONS, ENGS, ESCI, TMMA, GEOL, GMMD, MFGT, MATH, MSPT, PHYS, and SOET.

NOTE: General Technology students must successfully complete the SUNY Canton computer competency requirement.

Individual Studies—AAS

STUDENTS IN THIS MAJOR:

- Enroll in one of the Schools: School of Business and Liberal Arts; Canino School of Engineering Technology; or School of Science, Health, and Criminal Justice.
- Develop a program consistent with a specific career objective.
- Have the opportunity to explore an unknown area.
- Benefit from the knowledge and skills obtained through life experiences.
- Earn an Associates in Applied Science after 60 credits hours.
- May transfer into baccalaureate degree programs.

CAREER OPPORTUNITIES:

Employment options are unlimited, since in consultation with the academic advisor, students can design their own programs.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Burke’s Construction
- Fleet Bank
- Dine-A-Mate, Inc.
- Builders Square
- Corning, Inc.
- Claxton-Hepburn Medical Center
- Potsdam Stone and Concrete
- Morris Protective Services

ADMISSION REQUIREMENTS:

- Student should be prepared to take Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102).
- Transfer students must meet re-registration requirements.

TRANSFER OPPORTUNITIES:

- SUNY Canton
- SUNY Potsdam, Plattsburgh, Oswego, Cortland, Geneseo, and Brockport
- State University Centers at Albany, Buffalo, and Binghamton
- Clarkson University
- Niagara University
- St. Lawrence University

PROGRAM REQUIREMENTS:

<i>(Curriculum 0688)</i>	
English/Humanities.....	6
Social Sciences	6
Natural Sciences and/or Mathematics.....	6
Applied Electives *.....	30
Liberal Arts Elective	3
General Electives	9
	60*

**All students must take a writing intensive applied elective.*

NOTE: All students must successfully complete the SUNY Canton computer competency requirement.

Liberal Arts and Sciences: General Studies—AA, AS

STUDENTS IN THIS MAJOR:

- Develop a program consistent with a specific career objective or select a concentration from academic areas of humanities, social sciences or natural sciences.
- Prepare for careers in teaching, law, journalism, public administration, human services, finance, insurance, pharmacy, physical therapy, and other fields requiring an understanding of the human condition and the ability to communicate ideas.
- Graduate and continue study in such disciplines as English, education, art, drama, music, communication, economics, history, psychology, sociology, and anthropology.
- Complete all or the majority of the courses required in the first two years of a baccalaureate program in the natural and physical sciences. Graduates have successfully transferred to pharmacy and physical therapy programs.
- Have the opportunity to cross-register at SUNY Potsdam, St. Lawrence University, and Clarkson University.
- Transfer to baccalaureate programs.

CAREER OPPORTUNITIES:

Employment options are unlimited, since in consultation with the academic advisor, students can design their own programs.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Burke's Construction
- Fleet Bank
- Corning, Inc.
- Claxton-Hepburn Medical Center
- Potsdam Stone and Concrete
- Morris Protective Services
- New York State Department of Social Services

TRANSFER OPPORTUNITIES:

- SUNY Potsdam, Plattsburgh, Oswego, Cortland, Geneseo, and Brockport
- St. Lawrence University
- State University Centers at Albany, Buffalo, and Binghamton
- Clarkson University
- SUNY ESF
- SUNY Upstate Medical University at Syracuse

ADMISSION REQUIREMENTS:

- Prepared to take Expository Writing (ENGL 101)
 - NYS English Regents score ≥ 75 ; or
 - Verbal SAT score ≥ 420 ; or
 - Reading and Writing ACT scores ≥ 17 ; or
 - Transfer student who has already passed a college-level English course.
- Prepared to take GER Math
 - NYS Geometry Regents or Math A plus one year; or
 - Already passed Intermediate Algebra or equivalent.

PROGRAM REQUIREMENTS:

DEGREE PROGRAMS

(Curriculum 0250)

AA DEGREE	Credits
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
FYEP 101 First Year Experience.....	1
Humanities (GER 7)	3
Humanities Elective	3
Fine Arts OR Language (GER 8, 9)	3
American History (GER 4)	3
Western Civilization OR World History (GER 5, 6)	3
Mathematics (GER 1) ¹	3
Science (GER 2) ²	6
Math or Science ³	3
Social Science (<i>other than history</i>) (GER 3)	3
Social Science Elective	3
General Electives	12
Liberal Arts Electives	12
	61⁴

AS DEGREE

ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
FYEP 101 First Year Experience.....	1
Humanities (GER 7)	3
Fine Arts or Language (GER 8, 9)	3
American History (GER 4)	3
Western Civilization OR World History (GER 5, 6)	3
Mathematics (GER 1) ¹	3
Science (GER 2) ²	6
Math or Science ³	3
Social Science (<i>other than History</i>) (GER 3)	3
General Electives	30
	61⁴

¹ Minimum level College Algebra (MATH 141) or Survey of Math (MATH 111)

² One science course must be a laboratory science. Two science courses minimum.

³ Minimum 12 credit hours of math/science

⁴ Required: One writing intensive course in a liberal arts or science discipline

NOTE: Liberal Arts and Sciences: General Studies students must successfully complete the SUNY Canton computer competency requirement.

Mechanical Engineering Technology—AAS

Graduates of Mechanical Engineering Technology (MET) work in a wide range of industries with a broad array of career opportunities. From manufacturing and construction to equipment testing and power generation, employment opportunities exist in production, product/system testing, quality improvement, and technical services support. The MET program is appropriate for individuals who like hands-on experience, enjoy technology, and want to use their heads. Math ability is important and students will center much of their effort on experimentation and problem solving.

STUDENTS IN THIS MAJOR:

- Learn about technologies associated with manufacturing.
- Receive a strong core preparation in math and science to facilitate success in engineering technology.
- Experience learning in an environment that closely models the workplace.
- Have the flexibility to commence their career immediately upon graduation or to continue with the pursuit of a baccalaureate degree.
- Apply the scientific and technical knowledge learned through their academic and hands-on experience at SUNY Canton combined with their own judgement to design, test, troubleshoot and improve machines, tooling, processes and information flow that serve the manufacturing industry.

CAREER OPPORTUNITIES:

Typical job titles in which our graduates are employed are:

- Mechanical Engineering Technician
- Engineering Assistant
- Computer-Aided Drafting
- Designer
- Quality Management Technician
- Lab Technician
- Instructional Assistant

- Field Service Technician
- CNC operator/programmer

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Stature Electric, Inc.
- Corning, Inc.
- CIVES Steel Co.
- IBM
- Viking-Cives, USA
- Schneider Packing
- Acco Brands
- Gleason Works
- Bombardier, Inc.
- Novelis
- Young and Franklin, Inc.

PLACEMENT:

- All graduates during the past five years have either started their careers or continued their education. Forty percent in industry, and sixty percent elected to continue their education with the pursuit of a baccalaureate degree.

TRANSFER OPPORTUNITIES:

- SUNY Canton (Alternative and Renewable Energy Systems, Industrial Technology Management)
- SUNY Utica/Rome
- Rochester Institute of Technology
- SUNY Alfred
- SUNY Buffalo

ACCREDITATION:

- Accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (TAC/ABET), 111 Market Place, Suite 1050, Baltimore, MD 21202 – Telephone (410) 347-7700.

ADMISSION REQUIREMENTS:

- Students must be qualified to enter Pre-Calculus Algebra (MATH 123)

Students who do not meet the recommended high school math prerequisites may be admitted; students may be admitted into Mechanical Engineering Technology upon completion of this prerequisite.

PROGRAM REQUIREMENTS:

(Curriculum 0493)

Semester I	Credits
MECH 111 Computer Drafting	3
MECH 121 Manufacturing Processes I	3
MFGT 100 Manufacturing Topics	1
ENGL 102 Oral & Written Expression	3
MATH 123 Pre-Calculus Algebra	4
PHYS 121 College Physics I	3
PHYS 125 Physics Lab I	1
	18

Semester II

MECH 112 Advanced Computer Drafting	3
MECH 222 Manufacturing Processes II	2
MFGT 120 Manufacturing Materials *	3
SOET 110 Computer Applications for Tech	2
MATH 161 Calculus I	4
PHYS 122 College Physics II	3
PHYS 126 Physics Lab II	1
	18

Semester III

CONS 263 Structural Mechanics	4
ELEC 261 Electricity	4
MFGT 220 Instrumentation & Controls	3
Social Science Elective	3

Elective (CHOOSE ONE OF TWO)

MECH 223 Intro. to Comp. Numerical Control	3
MECH 251 Quality Control	3
	17

Semester IV

MECH 225 Intro. to Thermodynamics	3
MECH 226 Thermo Fluid Lab	1
MECH 232 Machine Design	4
MECH 241 Fluid Mechanics	3
ELEC 141 Industrial Controls	2
English (Literature)	3
	16

** Fulfills writing intensive requirement.*

NOTE: Mechanical Engineering Technology students must successfully complete the SUNY Canton computer competency requirement.

ADDITIONAL GRADUATION REQUIREMENTS

Students must have complete the equivalent of one full-time semester hours (12 credit hours) under the direct advisement of the program faculty, in technically specialized courses offered by the program area.

Nursing—AAS

STUDENTS IN THIS MAJOR:

- Utilize the nursing process, think critically, and base patient care on evidence based practice.
- Engage in active learning.
- Develop personally and professionally.
- Upon meeting the requirements for graduation, are eligible to sit for the licensing examination to become Registered Professional Nurses.

CAREER OPPORTUNITIES:

- Acute Care
- Long-Term Care
- Specialty Areas
- Community Agencies

CAREER OUTLOOK:

- The largest health care occupation
- There is increasing diversity in nursing employment, and projections indicate large numbers of new jobs.

EMPLOYERS OF SUNY CANTON GRADUATES:

- Hospitals and outpatient clinics
- Long-term care facilities
- Community health agencies
- Schools

TRANSFER OPPORTUNITIES:

- Graduates have a number of transfer options including: RN-MSN, RN-BSN, and BSN programs. Students may also elect to transfer into the SUNY Canton online RN-BS program.

ACCREDITATIONS:

- National League for Nursing Accrediting Commission, 61 Broadway, NY, NY 10006. 212-363-5555, ext. 153.
- Registered by the NYS Education Department, Office of the Professions.

ADMISSION REQUIREMENTS:

Admission is selective and is based on academic credentials. In order to be considered for admission, high school graduates should have a recommended high school

average of 80 or higher at the time the application is submitted, or SAT score of 900 or higher, or ACT score of 21 or higher. Students transferring into the program should have a recommended cumulative GPA of 3.0 or higher at the time the application is submitted. Students must complete prerequisite courses in Biology, Chemistry, and Math. High school prerequisites include: two high school Regents math courses with a grade of 75 or above on the second NYS Regents mathematics examination, Biology or Living Environment with a grade of 80 or above on the NYS Regents exam, and Chemistry with a grade of 70 or above on the NYS Regents exam. Equivalent college-level course work: Intermediate Algebra with a final grade of C+ or higher, Introduction to Biology with a final grade of B or higher, and Introduction to Chemistry with a final grade of C or higher. Non-New York State high school graduate transcripts will be evaluated by admissions staff for leveling purposes. STUDENTS WILL NOT BE CONSIDERED FOR ADMISSION UNTIL ALL PREREQUISITES HAVE BEEN MET. Prerequisite courses must have been completed within 7 years prior to program admission. The following courses must have been completed within 7 years prior to program admission with a final grade of C or higher in order to be considered for transfer: Anatomy and Physiology I and II, Microbiology. A committee will review qualified applicants beginning in early February.

Students who do not meet the prerequisites may be eligible to enroll in a preparatory curriculum.

Completion or admission into a preparatory curriculum does not guarantee admission to nursing.

Licensed Practical Nurses may apply for advanced standing. Please contact the nursing program for more information.

PROGRAM REQUIREMENTS:

(Curriculum 0622)

Semester I	Credits
NURS 101 Fundamentals of Nursing	6
NURS 103 Pharmacology I.....	1

NURS 105 Nursing Seminar.....	1
BIOL 217 Human Anatomy & Physiology I.....	4
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
PSYC 101 Introduction to Psychology.....	3

18

Semester II

NURS 102 Psychiatric and Maternal Child Nursing	9
NURS 104 Pharmacology II	1
BIOL 218 Human Anatomy & Physiology II.....	4
PSYC 225 Human Development OR	
PSYC 220 Child Development	3

17

Semester III

NURS 200 Pharmacology III.....	1
NURS 201 Medical-Surgical Nursing I.....	10
BIOL 209 Microbiology.....	4
Liberal Arts Elective.....	3

18

Semester IV

NURS 202 Medical-Surgical Nursing IV	10
NURS 203 Profes. Issues & Trends in Nursing* ..	1
NURS 204 Pharmacology IV	1
Lib. Arts Elect. (GER 1,4,5,6,7,8,9).....	3

15

**Fulfills writing intensive requirement.*

NOTE: Nursing students must successfully complete the SUNY Canton computer competency requirement.

—CPR certification (Health Provider Status) is required for NURS 102, 201, and 202.

Students will complete clinical experiences in hospitals, long-term care facilities, and community agencies throughout Northern New York. Clinical hours may include day, evenings, and weekends. The college does not provide transportation to clinical.

—The New York State Education Department, Office of the Professions requires persons applying for licensure to answer questions related to criminal convictions and/or professional misconduct.

—Once enrolled in Fundamentals of Nursing (NURS 101), students must complete this Nursing program within four years. For extraordinary situations, permission to complete beyond four years must be granted by the Dean of the School of Science, Health, and Criminal Justice in consultation with the Nursing Program Director.

—Of the four clinical nursing courses (NURS 101, 102, 201, and 202) only one course may be repeated one time.

—A grade of C or better is required for successful completion of all nursing courses, Human Anatomy and Physiology I (BIOL 217), Human Anatomy and Physiology II (BIOL 218), and Microbiology (BIOL 209).

—Successful completion of all corequisite courses and a semester GPA of 2.0 or better is required to continue in the program.

Residency Requirement: Students must complete SUNY Canton's NURS 201, 202, 203, and 204 in order to meet the program's residency requirements.

Physical Therapist Assistant—AAS

STUDENTS IN THIS MAJOR:

- Assist the Physical Therapist in implementing a plan of care, utilizing various physical therapy interventions to promote healing and restore function
- Promote health and wellness through various community education activities
- Develop professional behaviors consistent with those required to be an effective member of the health team
- Are eligible to take the National Physical Therapy Examination for the Physical Therapist Assistant after graduation

CAREER OPPORTUNITIES:

- Physical Therapist Assistants work in hospitals, nursing homes, rehabilitative centers, certified home health care agencies, private practices, and schools.

CAREER OUTLOOK:

- With increased activity in sports and fitness, physical therapy will be needed to treat and help prevent knee, leg, back, shoulder, and other musculoskeletal injuries.
- As the “baby boom” generation ages, physical therapist assistants are in demand to educate on wellness and prevention and to treat patients who are affected with arthritis, stroke, heart disease, and other prolonged-care conditions common to older people.
- Listed as one of the “Top 10 Fastest Growing Career Fields” in Money Magazine.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Canton-Potsdam Hospital
- United Helper's Nursing Home
- Claxton-Hepburn Medical Center

- Massena Memorial Hospital
- Champlain Valley Physician's Hospital
- Adirondack Medical Center
- Hoose, Knight, and Associates

TRANSFER OPPORTUNITIES:

- SUNY Canton's Physical Therapist Assistant program is not designed as a transfer program to an upper division physical therapy program. Students may contact the physical therapy program they wish to enter for insight into additional sciences, math, and liberal studies that serve as entrance requirements and can be studied at SUNY Canton. In addition, there are some Physical Therapy schools that run programming on weekends, accepting PTA program graduates directly.

ACCREDITATION:

- Commission on Accreditation in Physical Therapy Education 111 North Fairfax Street Alexandria, VA 22314-1488

ADMISSION REQUIREMENTS:

Admission is selective, based on academic credentials. To be considered for admission to the PTA curriculum, a student must possess the following:

- 80 cumulative high school average; NYS Geometry Regents or Math A plus one year with 65 or better; Biology Regents exam with 75 or better; Chemistry Regents exam with 65 or better OR college equivalents of the above courses with C or better; and 2.5 transfer GPA.

PROGRAM REQUIREMENTS:

Students are required to independently earn CPR certification and have an annual health assessment on file with the College and clinical site prior to their first clinical experience.

To progress in the PTA curriculum a minimal grade of “C” in BIOL 217 and in all curriculum courses prefixed with PHTA must be achieved.

(Curriculum 0489)

Semester I	Credits
PHTA 100 Intro. to Physical Therapy	3
PHTA 101 Fundamental PT Skills & Modalities.....	3
BIOL 217 Human Anatomy & Physiology I.....	4
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
PSYC 101 Introductory Psychology.....	3
	<u>16</u>

Semester II	Credits
PHTA 102 Kinesiology.....	3
PHTA 103 Musculoskeletal Pathologies.....	4
PHTA 105 Musculoskeletal Assessment Techniques	1
BIOL 218 Human Anatomy & Physiology II.....	4
PSYC 225 Human Development.....	3
PHTA 104 ** Clinical I (summer)	4
	<u>19</u>

Semester III	Credits
PHTA 204 Cardio. & Integumentary Pathologies	3
PHTA 203 PTA Seminar I.....	3
PHTA 205 Neuromuscular Pathologies	4
PHTA 206 Advanced PT Modalities.....	2
Liberal Arts Electives	6
	<u>18</u>

Semester IV	Credits
PHTA 207 ** Clinical II.....	6
PHTA 209 ** Clinical III *	8
PHTA 210 PTA Seminar II	2
	<u>16</u>

* Fulfills writing intensive requirement.

** Students must be prepared to work 40 hours per week and are responsible for their own transportation, meals, and housing as needed.

NOTE: Physical Therapist Assistant students must successfully complete the SUNY Canton computer competency requirement.

—The NYS Education Department Office of the Professions requires persons applying for licensure to answer questions related to conviction of a crime or professional misconduct.

Residency Requirement: To establish residency in the PTA program students must be matriculated in the curriculum for at least 15 hours of graded coursework with at least 12 of these being prefixed with PHTA.

Veterinary Science Technology—AAS

STUDENTS IN THIS MAJOR:

- Work with companion animals, farm animals and common laboratory animals.
- Gain hands-on experience in small laboratory sections
- Will be eligible to take the Veterinary Technician Licensing Examination upon graduation.
- Will be eligible to take the certification examination of the American Association of Laboratory Animal Science after six months of laboratory employment.
- Perform mandatory kennel duty rotation in their senior year.
- * Can transfer into the 4 year Veterinary Services Management, B.Tech. degree at SUNY Canton

CAREER OPPORTUNITIES:

Veterinary technicians provide professional technical support to veterinarians, biomedical researchers, and other animal care specialists. Technicians may work in:

- Clinical Practice
- Animal Shelters
- Diagnostic Laboratories
- Educational Institutions
- Pharmaceutical and Research Industry
- Veterinary Supply and Equipment Sales
- Zoo/Wildlife Medicine
- State and Federal Agencies
- Farms & Stables

CAREER OUTLOOK:

- In 2010, there were about ten jobs available per graduate.
- At the present time, there is a serious shortage of veterinary technicians throughout the country.

TRANSFER OPPORTUNITIES:

- Articulation agreement with Cornell College of Agriculture and Life Sciences undergraduate program in Animal Sci-

ence for any student graduating with a 3.0 average and possessing the required prerequisite courses.

- Articulation agreement with Mercy College.
- SUNY Canton (Veterinary Services Management, B.Tech.)

TIME TO COMPLETE THE PROGRAM:

Once enrolled in Fundamental Veterinary Nursing Skills I (VSCT 101), students must complete the Veterinary Science program within four years. For extraordinary situations, permission to complete the Veterinary Science program beyond four years may be granted by the Dean of the School of Science, Health and Criminal Justice in consultation with the Veterinary Science Program Director.

ACCREDITATION:

- AVMA, 1931 N Meacham Rd., Suite 100, Schaumburg, IL 60173-4360. 847-925-8070
- Full Accreditation

ADMISSION REQUIREMENTS:

- Overall high school average of 80 or better
- Biology Regents exam with 75 or better
- Chemistry Regents exam with 65 or better
- NYS Geometry Regents or Math A plus one year.
- Minimum high school average of 80.

Students who do not meet necessary prerequisites may enroll in a preparatory curriculum. Once a grade of 2.0 or better has been achieved in each of the prerequisites of BIOL 101 or 102, CHEM 101 and MATH 106; and an overall 2.5 grade point average has been achieved, the student may apply for admission to the Veterinary Science Technology curriculum.

A pre-exposure rabies vaccination series (3 injections) is strongly recommended for

all Veterinary Science Technology students. This can usually be arranged through your local health department or personal physician.

PROGRAM REQUIREMENTS:

(Curriculum 0521)

Semester I	Credits
VSCT 101 Fundamental Vet. Nursing Skills I....	2
VSCT 103 Intro. to Animal Agriculture	2
BIOL 150 College Biology I	4
CHEM 120 General, Organic & Biochemistry	3
CHEM 121 Gen., Organic & Biochemistry Lab..	1
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
FYEP 101 First Year Experience.....	1
	16

Semester II	Credits
VSCT 104 Veterinary Office Procedures.....	1
VSCT 112 Veterinary Clinical Pathology I	3
VSCT 114 Animal Anatomy & Physiology	3
VSCT 115 Fundamental Vet. Nursing Skills II....	2
VSCT 212 Research Animal Techniques.....	1
BIOL 209 Microbiology	4
Liberal Arts Elective (GER 7, 8, 9) ...	3
	17

Semester III	Credits
VSCT 202 Veterinary Clinical Pathology II.....	3
VSCT 203 Small Animal Medicine & Therapeutic Techniques	3
VSCT 204 Large Animal Medicine & Therapeutic Techniques	2
VSCT 205 Radiographic Techniques	2
VSCT 206 Anesthetic Principles.....	3
VSCT 207 Animal Health & Disease	3
	16

Semester IV	Credits
VSCT 102 Companion Animal Behavior.....	2
VSCT 210 Veterinary Microbiology	3
VSCT 211 Animal Hospital Practices and Procedures *.....	3
VSCT 213 Practical Nutrition.....	2
VSCT 214 Veterinary Pharmacology	2
CITA 104 Introduction to Database.....	1
PSYC 101 Introductory to Psychology.....	3
Liberal Arts Elective (GER 4, 5, 6) ...	3
	18

* Fulfills writing intensive requirement.

—Of the courses with the VSCT prefix, any course may only be repeated one time.

NOTE: Veterinary Science Technology students must successfully complete the SUNY Canton computer competency requirement.

Residency Requirement: In order to graduate from the Veterinary Science Technology program, students must successfully complete the course VSCT 211 to comply with the residency requirement.

Air Conditioning Maintenance & Repair—Certificate

STUDENTS IN THIS CERTIFICATE PROGRAM:

- Gain the skills to begin a career in refrigeration and air conditioning service.
- Install and service refrigeration and air conditioning equipment for residential and commercial buildings.
- Get hands-on experience in well-equipped, small laboratory sections.
- Receive one-on-one instruction from faculty who have experience in the field.

CAREER OPPORTUNITIES:

- Refrigeration and Air Conditioning Contractor
- Manufacturer Representative
- Plant Maintenance Technician
- Appliance Repair Technician

CAREER OUTLOOK:

- Job prospects are expected to be very good.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Refrigeration and air conditioning supply houses
- Hardware stores
- Farm supply and equipment dealers (Bulk tanks, etc.)
- Fuel companies
- Contractors

TRANSFER OPPORTUNITIES:

- SUNY Canton—AAS degree programs and other certificate programs.
- Other SUNY Technology Colleges' AAS programs.

ADMISSION REQUIREMENTS:

- Students are expected to have demonstrated academic success in high school and/or prior college experience.

Students completing two one-year Certificate programs in the Canino School of Engineering Technology can graduate with

two Certificates and an Associate in Applied Science degree by substituting three social science courses in the second year.

PROGRAM REQUIREMENTS:

(Curriculum 1387)

Semester I	Credits
ACHP 103 Refrigeration & Air Conditioning Service I.....	7
MATH 101 Applied College Mathematics	3
ENGL 102 Oral and Written Expression	3
CONS 151 Building Trades Blueprint Reading & Drafting.....	2
SOET 100 Engineering Technology Forum.....	1
	<u>16</u>

Semester II

ACHP 104 Refrigeration & Air Conditioning Service II	7
ACHP 105 Refrigeration System Design	2
General Electives (by advisement).....	6
	<u>15</u>

** Mathematics level depends on previous preparation. Students who are unprepared to enter Applied College mathematics will be first required to satisfactorily complete MATH 099 Foundation of Applied College Mathematics. Those graduates who show sufficient interest and aptitude may qualify for entry into one of the associate degree programs.*

Electrical Construction & Maintenance—Certificate

The Electrical Construction & Maintenance (EC & M) program prepares students to work in building trades with the installation and testing of electrical power distribution and an emphasis placed on residential construction applications. Students are also introduced to commercial applications and building codes. At the successful completion of this one-year program, students will earn the EC&M certificate.

STUDENTS IN THIS CERTIFICATE PROGRAM:

- Install wiring systems and equipment in buildings.
- Connect electrical devices in accordance with the NEC (National Electrical Code).
- Perform routine maintenance on motors and transformers.
- Install motor control circuits.

CAREER OPPORTUNITIES:

- Electrical Apprentice
- Electrician
- Plant Maintenance Technician
- Electrical Supply Counter Person and Sales Support Person
- Electrical/Electronic Assembly

- Security Systems Sales and Service Representative
- Power Corporation Service Representative
- Entrepreneurship

CAREER OUTLOOK:

- U.S. Department of Labor projects 30% annual employment growth over the next several years.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Atlantic Testing
- International Brotherhood of Electrical Workers
- Niagara Mohawk Power Corporation
- Novelis
- Smith Building Supply
- NYSEG
- S & L Electric

TRANSFER OPPORTUNITIES:

- Approximately 50% of EC&M graduates choose to pursue further education full time at:
 - SUNY Canton—AAS degree programs and other certificate programs
 - Rochester Institute of Technology
 - SUNY Utica/Rome, Oswego

ADMISSION REQUIREMENTS:

- Students are expected to have demonstrated academic success in high school and/or prior college experience.

Students completing two one-year certificate programs in the Canino School of Engineering Technology can graduate with two certificates and an Associate in Applied Science degree by substituting three social science courses in the second year.

PROGRAM REQUIREMENTS:

(Curriculum 0955)

Semester I		Credits
ELEC 171	Elec. Constr. & Maintenance I.....	7
ELEC 173	Intro. to Nat. Electrical Code.....	1
CONS 151	Building Trades—Blueprint Reading and Drafting.....	2
MATH 101	Applied College Mathematics.....	3
SOET 100	Engineering Technology Forum.....	1
		14
Semester II		
ELEC 172	Elec. Constr. & Maintenance II.....	7
	English (Writing).....	3
	Sci/Tech Elective.....	3
	General Elective.....	3
		16

**Mathematics levels depend on previous preparation. Students who are unprepared to enter MATH 101 will be required to first complete MATH 099 Foundation of Applied College Mathematics. Those graduates who show sufficient interest and aptitude may qualify for entry into one of the associate degree programs.*

ADDITIONAL GRADUATION REQUIREMENTS

While at SUNY Canton students must have completed course ELEC 172 and earn a minimum GPA of 1.75.

Health Science Career Studies—Certificate

STUDENTS IN THIS CERTIFICATE PROGRAM:

- Receive a background in chemistry, biology, and math.
- Are prepared for rigorous health degree programs
- Are prepared for entry-level health-related jobs

CAREER OPPORTUNITIES:

- Emergency Room Admit Clerks
- Ward Clerks
- Clinical Receptionist
- Veterinary Assistant

TRANSFER OPPORTUNITIES:

- SUNY Canton—AAS degree programs in health careers
- SUNY Canton—B.Tech. program in Health Care Management

ADMISSIONS REQUIREMENTS:

- Students are expected to have demonstrated academic success in high school and/or prior college experience.

PROGRAM REQUIREMENTS:

(Curriculum 1774)

Semester I	Credits
Applied Elective (HLTH, VSCT, etc) *	3
MATH 100 Beginning Algebra OR **	
MATH 106 Intermediate Algebra OR **	
MATH 111 Survey of Mathematics **	3
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
BIOL 101 Introduction to Biology OR ***	
Science Elective	4
BASK 060 Freshman Seminar	1
	<u>14</u>

Semester II

Applied Elective (HLTH, VSCT, etc) *	3
CHEM 100 Intro to Chemistry Lab AND ***	1
CHEM 101 Intro to Chemistry OR ***	3
Science Elective ***	4
MATH 106 Intermediate Algebra OR	
MATH 111 Survey of Mathematics OR	
General Elective.....	3
General Elective.....	3
English/Humanities Elective (GER 7, 8, 9)	3
	<u>16</u>

* Applied electives are limited to the health areas.

** Minimum MATH 106 with a grade of “C” required for entry into health field AAS.

*** Biology and chemistry requirements should be met before other science electives are taken. Minimum biology and chemistry with a grade of “C” required for entry in health field AAS.

--In order to apply for health curriculum, a minimum GPA may be required; and some health curricula have selective admission.

Heating and Plumbing Service—Certificate

The Heating & Plumbing Service (H&PS) program prepares students to work in the building trades with the installation, maintenance, and repair of plumbing equipment, furnaces and boilers. Emphasis is placed on residential installation and maintenance, but students are introduced to commercial applications as well. At the successful completion of this one-year program, students earn the H&PS certificate.

STUDENTS IN THIS CERTIFICATE PROGRAM:

- Learn how to install and service plumbing and heating equipment for residential and commercial buildings.
- Obtain hands-on experience in well-equipped, small laboratory sections.
- Utilize laboratories and equipment in the Air Conditioning Engineering Technology program.

CAREER OPPORTUNITIES:

- Plumbing and heating contractors and supply houses
- Hardware stores
- Farm supply stores

- Fuel companies
- Plant maintenance

CAREER OUTLOOK:

- This field is expected to grow by about 5% annually for the next several years.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Central New York Trane
- Self employed
- Hulbert Brothers
- Griffith Oil Co.
- Armani

TRANSFER OPPORTUNITIES:

- SUNY Canton—AAS degree programs and other certificate programs
- AAS degree programs at other colleges of technology

ADMISSION REQUIREMENTS:

- Students are expected to have demonstrated academic success in high school and/or prior college experience.

Students completing two one-year certificate programs in the Canino School of Engineering Technology can graduate with two certificates and an Associate in Applied Science degree by substituting three social science courses in the second year.

PROGRAM REQUIREMENTS: (Curriculum 1949)

Semester I	Credits
CONS 151 Bldg Trades-Blueprint Reading & Drafting	2
ACHP 171 Heating & Plumbing Principles and Practice I.....	7
English (Writing).....	3
MATH 101 Applied College Mathematics.....	3
SOET 100 Engineering Technology Forum.....	1
	<u>16</u>
Semester II	
ACHP 105 Refrigeration System Design.....	2
ACHP 172 Heating & Plumbing Principles and Practice II	8
General Elective.....	6
	<u>16</u>

**Mathematics level depends on previous preparation; students are advised to continue mathematics coursework in both semester. Those graduates who show sufficient interest and aptitude may qualify for entry into one of the associate degree programs.*

**Students who are unprepared to enter MATH 101 must first satisfactorily complete MATH 099 Foundation of Applied College Mathematics.*

Powersports Performance and Repair— Certificate

Students completing the Powersports Certificate program are well prepared to commence a career in the service of motorcycles, ATVs and watercraft. SUNY Canton's unique program continues to place graduates with manufacturers and dealers alike. This program is well suited for individuals who like to work with their hands, enjoy recreational power equipment, and desire the knowledge to service state-of-art engine technologies. At the successful completion of this one-year program, students will earn the Powersports certificate.

STUDENTS IN THIS CERTIFICATE PROGRAM:

- Receive a world-class education in the power sports industry.
- Experience the latest technology in an electronics-based curriculum.
- Gain hands-on experience in well-equipped laboratories.
- Have access to obtaining Polaris/Victory service certifications.
- Continue to enjoy 100% placement in the workforce.

CAREER OPPORTUNITIES:

- Power Sports Service Technician
- Service Manager
- Service Advisor
- Industrial Research and Development
- Machine Shop Technician
- Parts Manager/Owner

- Technical Representative
- Maintenance Technician
- Marine Maintenance Technician

CAREER OUTLOOK:

- The power sports industry is one of the fastest growing fields in the service industry.
- With the impact of electronic engine management, coupled with the new clean air amendments effective 2007, the need for competent, educated technicians in this field is higher than ever.
- Career opportunities are expected to grow rapidly for those who are familiar with current technologies.

RECENT EMPLOYERS OF SUNY CANTON GRADUATES:

- Polaris/Victory
- Retail Manufacturers
- Federal Government
- Dealerships

TRANSFER OPPORTUNITIES:

- SUNY Canton Automotive Program
- SUNY Utica/Rome, and Oswego
- Rochester Institute of Technology
- Indiana State University
- Weber State College (Utah)

ADMISSION REQUIREMENTS:

- Students are expected to have demonstrated academic success in high school and/or prior college experience.

PROGRAM REQUIREMENTS:

(Curriculum 1632)

Semester I	Credits
MSPT 101 Motorsports Service.....	3
MSPT 130 Marine Propulsion Systems.....	2
AUTO 112 Auto. Electrical Systems.....	3
AUTO 122 Auto. Electrical Systems Lab	1
MATH 101 Applied College Mathematics*	3
English	3
	15
Semester II	
MSPT 110 Engine and Power Transmission Service	4
MSPT 120 Frame and Suspension Systems.....	3
AUTO 113 Engine Performance I	3
AUTO 114 Engine Performance I Lab	1
Business Elective.....	3
Humanities OR Social Science	3
	17

ADDITIONAL GRADUATION REQUIREMENTS:

- While at SUNY Canton, students must complete Motorsports Service (MSPT 110) and Frame and Suspension Systems (MSPT 120), earning a minimum GPA of 2.00 for these two courses.
- Students who are unprepared to enter Applied College Mathematics (MATH 101) must first satisfactorily complete Fundamentals of Applied Mathematics (MATH 099).

Practical Nursing—Certificate

The SUNY Canton Practical Nursing Certificate program is based upon the beliefs that:

Nursing care is based on a conceptual framework that is meaningful, logical, and relevant. Throughout an individual's life cycle, there is varying needs that must be met in order to maintain stability. As an evolving being, one is influenced by biological, cultural, psychological, and social factors. When needs are threatened by the internal or external environment, the individual interacts with the environment to restore balance. As an integral part of the health care delivery system nursing focuses on promoting, maintaining, and restoring balance on the health-illness continuum. The goal of nursing is to meet or assist with meeting biopsychosocial needs.

STUDENTS IN THIS MAJOR:

- Demonstrate responsibility to the nursing profession by attaining licensure immediately upon graduation as well as through continued learning.
- Practice within the values, framework, and legal parameters of the Licensed Practical Nurse and is accountable for the nursing care provided.
- Establish fundamental interpersonal and therapeutic communication both individually and in groups, both personally and through the use of communication technologies that contribute to improved patient outcomes.
- Collaborate with other members of the nursing team such as the Registered Nurse and unlicensed assistive personnel in providing care and in contributing to improved patient outcomes.
- Utilize assessment skills to collect client data using a standardized tool and

identifies and reports deviations from the normal.

- Assist in the planning of patient care, implementation of the care plan, and reports and records findings.
- Deliver nursing care that demonstrates caring behaviors.
- Utilize a designated teaching tool to instruct individuals on topics such as basic health promotion/maintenance and self-care.
- Delegate care appropriately and in collaboration with the Registered Nurse in contributing to improved patient outcomes.

CAREER OPPORTUNITIES:

- Long-term care
- Acute care
- Clinic settings

ACCREDITATIONS:

- Registered by the NYS Education Department, Office of the Professions.

ADMISSION REQUIREMENTS:

Admission into the program will be selective. In order to be considered for admission, the student:

- Must possess a high school diploma and have at least a final average of 75 or a GED with minimal score of 275.
- Meet eligibility requirements in order to enter Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102).
- Having a minimal score of 60 on the ACCUPLACER Test for Reading and a minimal score of 75 on the ACCUPLACER Test for Sentence Structure **OR**

Having a minimal English Regents Exam grade of 75 or higher **OR**

Having a verbal SAT score equal to or higher than 420 **OR**

Having a minimal reading and writing ACT score of 17

- Completed Beginning Algebra or its equivalent with a final course grade of C or better **OR** the New York State Regents Algebra exam with a grade of 65 or better.
- Completed Introduction to Biology or its equivalent with a final course grade of C or better **OR** the New York State Regents Biology exam with a score of 75 or better.
- Completed Introduction to Chemistry or its equivalent with a passing grade **OR** the New York State High School Regents Chemistry exam with a grade of 65 or better.
- In evaluating applicants, students who have demonstrated competences in additional math and science courses at either the college level or in high school will be given additional consideration for admission.
- Selective admission means that those students who exceed the minimal qualifications will be offered admission into the LPN certificate program first.

PROGRAM REQUIREMENTS:

(Curriculum 0938)

Semester I	Credits
LPNC 100 Drug Dosage Calc. & Pharm.....	3
LPNC 101 PN Fundamentals.....	8
BIOL 217 Human Anatomy & Physiology I.....	4
ENGL 101 Expository Writing OR	
ENGL 102 Oral and Written Expression	3
	18

Semester II

LPNC 102 PN Specialty Populations.....	3
LPNC 103 PN Medical-Surgical.....	8
BIOL 218 Human Anatomy & Physiology II.....	4
PSYC 101 Introduction to Psychology.....	3
	18

—Students must complete all LPNC and corequisite courses with a minimal grade of C in order to graduate.

Academic Minors

A minor is a course sequence within an area of study providing a degree of specialization within that area, a specialty within a discipline, or a specialty integrating several disciplines. Minors will contain a balance of introductory and advanced coursework. Provided the minor is declared in a timely manner (before there

is less than 45 credits left to take before graduation), minors are designed to be completed within the same time frame allowed for the completion of the baccalaureate degree. After matriculating in a program, students wishing to obtain a minor shall contact the coordinator of the minor to initiate the process.

ACCOUNTING

This minor is available to any student who wishes to pursue an accounting career with the goal of becoming a CPA. This is an opportunity for SUNY Canton students to earn a minor in accounting, regardless of their undergraduate major, and give them the basic undergraduate courses necessary to complete a MS in Accounting. It allows accounting transfers from community colleges to earn the minor in Accounting, complete a baccalaureate degree, and then enroll in the MS in Accountancy.

MINOR REQUIREMENTS:

	Credits
ACCT 301 Intermediate Accounting I.....	3
ACCT 302 Intermediate Accounting II	3
ACCT 306 Cost Accounting.....	3

SELECT THREE COURSES

Auditing and Individual Taxation are required for the CPA exam and Advanced Accounting is recommended.

ACCT 245 Forensic Accounting	3
ACCT 310 Accounting Information Systems.....	3
ACCT 335 Individual Taxation.....	3
ACCT 430 Auditing	3
ACCT 440 Advanced Financial Accounting.....	3
BSAD 305 Public Budgeting and Fiscal Management	3
BSAD 365 Financial Statement Analysis.....	3

APPLIED PHYSICS

The Applied Physics Minor is an excellent way for students to broaden their knowledge of physics and the world around them. Students build a secondary area of expertise in support of their major discipline. This minor is applicable to all students; it is of particular interest to students majoring in science and engineering technology programs. The minor provides courses that emphasize applications of physics with hand on projects.

MINOR REQUIREMENTS:

	Credits
PHYS 121 College Physics I OR	
PHYS 131 University Physics I	4
PHYS 122 College Physics II OR	
PHYS 132 University Physics II	4
PHYS 202 Modern Physics	3
PHYS 301 Introduction to Photonics	3

SELECT TWO COURSES

PHYS 330 Intro to Classical Mechanics	3
PHYS 340 Electromagnetism	3
PHYS 410 Solid State Science.....	3
PHYS 420 Intro to Quantum Mechanics	3
AREA 320 Experimentation and Measurement Lab I.....	3
MECH 343 Thermodynamics.....	3

ECONOMICS

The Economics minor is applicable to all students who would like to broaden their knowledge of economics. It is a common minor for students majoring in business, management and finance. It provides students with analytical and problem-solving skills in applied economics fields such as economic development, economics of crime, environmental economics, financial economics, global economy, health economics, labor economics, managerial economics, public economics, and other areas. Six courses (18 credits) must include ECON 101, ECON 103, ECON 314, and ECON 315.

MINOR REQUIREMENTS:

	Credits
ECON 101 Principles of Macroeconomics	3
ECON 103 Principles of Microeconomics.....	3
ECON 314 Managerial Economics.....	3
ECON 315 Global Economy.....	3

SELECT TWO COURSES

Any course with an ECON designation may be used as an optional course in the minor. For students not in Finance, Principles of Banking and/or Global Finance, may be used as optional course(s) in the minor. At least one optional course must be at the upper level.

Academic Minors

MANAGEMENT INFORMATION SYSTEMS

The Management Information Systems Minor offers students the opportunity to broaden their disciplinary program with material and skills widely useful in the business world. Information technology has been the driving force behind the new economy. It has enabled companies to make tremendous strides in productivity, opened new markets and channels, and created new products and services. While one part of the information revolution has been advances in hardware and software, another major advance has been in how information is organized and used to make effective decisions. This program helps students to broaden their exposure to information technology and its use in business and industry.

MINOR REQUIREMENTS:

	Credits
MINS 300 Management Information Systems ...	3
MINS 305 Customer Relationship Management	3
MINS 315 Decision Support Systems	3
MINS 425 Enterprise Resource Planning	3
MINS 430 Data and Knowledge Management...	3

SELECT ONE COURSE

BSAD 345 Technological Innovations and Entrepreneurship	3
BSAD 372 E-Commerce	3
BSAD 373 International Business Management	3
BSAD 375 Leadership and Change	3
CITA 330 Emerging Information Technology Applications.....	3
CITA 400 Quantitative Approaches to Management	3
CITA 460 Information Technology and Networked Economy.....	3

MATHEMATICS

The study of mathematics develops the logic and reasoning skills that provide the tools for making decisions, interpreting observations, explaining natural phenomena, and solving problems. The Mathematics Minor provides a way for students to formally demonstrate competency in using

mathematics. The minor is important for prospective employers and for use when students consider a transfer to other educational institutions. The Mathematics Minor is an important tool for the growing number of technology and business 4-year programs.

MINOR REQUIREMENTS:

A minimum of 20 credit hours is needed to complete the minor in Mathematics as follows:

CORE REQUIREMENTS	Credits
MATH 161 Calculus I	4
MATH 162 Calculus II.....	4
MATH 141 Statistics I	3

SELECT THREE COURSES

(at least 2 must be MATH designated)

MATH 341 Statistics II.....	3
MATH 263 Calculus III	4
MATH 264 Differential Equations.....	3
MATH 361 Linear Algebra	3
MATH 351 Discrete Mathematics	3
MATH 371 Graph Theory	3
Elective from other disciplines *..	3 - 4

**Business, computer, engineering, physics courses in which mathematics plays a significant role may be selected with approval by the mathematics department*

WOMEN'S STUDIES

The Women's Studies Minor is committed to broadening women's and men's knowledge and awareness of issues concerning or related to women. From an interdisciplinary approach, the minor provides a variety of courses that emphasize the female experience from both national and global perspectives.

MINOR REQUIREMENTS:

	Credits
WMST 201 Intro to Women's Studies.....	3
WMST 401 Capstone Proj. in Women's Studies...	3

SELECT FOUR COURSES

SOCI 305 Gender in the Media	3
ECON 301 Gender and Development in Africa ..	3
<i>(approval pending)</i>	
ENGL 330 Women in Literature	3
HIST 204 U.S. Immigration History Through Race, Class and Gender	3

HIST 304 U.S. Women's History	3
SOCI 313 Women and Aging.....	3

WRITING AND COMMUNICATION

The Minor in Writing and Communication trains students in the communication skills sought by employers and necessary for responsible citizenship. The coordinator will work with you to tailor a minor appropriate to your degree program, career plans, and personal interests.

Students will take a minimum of six of the courses designated below, with at least one course from each of the three areas:

MINOR REQUIREMENTS:

	Credits
HUMANITIES	
ENGL 201 Writing in the Arts and Sciences	3
ENGL 202 Creative Non-Fiction.....	3
ENGL 221 Creative Writing	3
ENGL 265 Writing in the Humanities: Thematic Inquiry	3
ENGL 301 Professional Communication and Writing.....	3
ENGL 310 Writing Your Life: Form & Function in Memoirs.....	3
ENGL 315 Short Fiction: The Art of the Tale	3
ENGL 335 Contemporary Theater Lab.....	4
HUMA 293 Special Topics: Acting and Improvisation	3
SPCH 104 Introduction to Speech	3

VISUAL COMMUNICATION/NEW MEDIA

GMMD 102 Introduction to Design	3
GMMD 409 Issues in New Media Journalism	3
CITA 111 Web Page Development.....	2
CITA 112 Introduction to Electronic Presentations	1
CITA 211 Desktop Publishing	3
CITA 420 Programming for the Web	3

BUSINESS/PROFESSIONS

BSAD 200 Business Communications	3
BSAD 340 Management Communications	3
ENGL 301 Professional Writing and Communication	3
ENGL 309 Journalism	3
JUST 209 Law Enforcement Communications	3
LEST 330 Legal Writing.....	3

Other Programs

POLICE ACADEMY PROGRAM

WAYS IN WHICH ONE MAY ENTER THE ACADEMY:

- Become a full-time student at SUNY Canton and enroll in the Criminal Justice curriculum with the Police Academy curriculum coordinator. The Academy is currently offered in the spring semester only. The Academy is worth up to 12 college credits toward the associate degree in Criminal Justice and 15 college credits toward the bachelor degree in Criminal Investigation for all full-time tuition-paying cadets.
 - Be hired and sworn as a full-time police officer of a law enforcement agency.
 - Be sworn in as a part-time police officer and carried on the Workmen's Compensation of the employing police agency.
 - Enroll as a non-degree student in Pre-Employment for Basic Course for Police Officers.
- * Attending SUNY Canton is not a guarantee that you may attend the Police Academy. Entry is competitive, space is limited, and applicants must meet all entry requirements.*

ACADEMICS:

Student cadets must meet admissions requirements for full-time students and must have the approval of the Academy Director.

APPLICATION:

The application and all forms (available at www.canton.edu/academics) must be completed and returned to the Director of the Police Academy at SUNY Canton. A statement of physical fitness, signed by a physician, must accompany the application. Application for spring enrollment in the Academy should be submitted by October 1. Any deception on the application is grounds for rejection. A thorough background investigation may be conducted on the applicant after completing an oral interview by the Academy Board of Directors. An applicant may not be admitted to the

Academy if the investigation discloses unsuitability for a law enforcement career due to criminal behavior, alcohol or controlled substance abuse, poor driving record, lack of integrity, inappropriate financial problems, or other evidence of a bad attitude. Applying to the Academy is no guarantee of acceptance. If you realize you are not acceptable for hiring as a police officer, do not apply to the Academy. In case of doubt as to your suitability, ask your local police chief.

INTERVIEW:

The applicant will undergo at least one interview conducted by the law enforcement executives of the county. This interview will be conducted prior to completion of the background investigation and determines whether or not the applicant is accepted into the Academy.

PHYSICAL FITNESS:

Physical fitness should be a lifelong goal of a law enforcement officer and is stressed in the Academy. In order to be admitted to the Academy, the cadet must pass the current Cooper testing standards for police officers. If you know you are out of shape, do not wait until the Academy starts to begin to correct the condition.

COSTS:

Cost depends on your status upon entry. Veterans benefits and financial aid may apply. Check with the Financial Aid Office of the College.

- You pay the usual tuition rates as a full-time student including all fees. Costs of books and anticipated lab fees for student manuals totals approximately \$500.00 and uniforms (including boots) approximately \$200.00.

AGE:

Please inquire with the Director of the Police Academy.

MEDICAL FITNESS:

You must be medically fit to be a police officer. Individual police departments determine what is acceptable in regard to eyesight and injuries, such as trick knees and shoulders. It is your responsibility to obtain medical certification that you are fit to perform the physical training in the Academy. It is your responsibility to determine if your eyesight and any disabilities disqualify you from being hired as a police officer. In case of doubt, ask your local police chief.

- Graduation from the Academy is not a guarantee of a job in law enforcement. You must still meet all the criteria of the hiring law enforcement agency (i.e. score well in the civil service exam and be medically and morally fit).
- If you are not hired within two years, you may have to take the refresher course. The Academy will not substitute for the State Police, Environmental Conservation, or Park Police academies, or the academies of larger municipalities such as New York City, however your chances of employment are increased by successfully completing the Police Academy. The Academy curriculum and instructors are approved by the Municipal Police Training Council.
- If you fail in the Academy either academically, physically, or through insufficient attendance, college policies regarding refunds apply. Pre-employment Phase 1 Cadets will not be certified as Police Officers by the State and/or College. If you are in the Academy for college credit and fail, the Criminal Justice curriculum coordinator will evaluate the work completed for credit on a case by case basis.

The Academy information along with the application form can be obtained from the college website: www.canton.edu/academy.

Other Programs

ENVIRONMENTAL SCIENCE AND FORESTRY—*Two-Plus-Two Articulation Agreement with SUNY ESF*

SUNY Canton participates in a cooperative program with the SUNY College of Environmental Science and Forestry (ESF). By providing most of the required courses needed at ESF, this effort insures an easy transition into a student's junior (3rd) year at the College. SUNY Canton graduates attending ESF compete extremely well with students from other colleges.

Students enrolled in this program receive

an AA degree in Liberal Arts and Sciences: General Studies. A student attending SUNY Canton is able to obtain all the necessary required courses for the various pre-environmental programs during two years¹.

The ESF programs are: Aquatic and Fisheries Science, Conservation Biology, Environmental Biology, Environmental Science, Environmental Studies, Forest Ecosystems Science, Forest Resource Management,

Landscape Architecture, Natural Resource Management, and Wildlife Science.

Students interested in this program need to apply for the Liberal Arts and Sciences: General Studies (Curriculum 0250) program. Call the Office of Admissions 315-386-7123/800-388-7123 for further details.

¹Some curricula may require cross-registration to complete requirements.

FOREST TECHNOLOGY—*One-Plus-One Articulation Agreement with SUNY ESF*

SUNY Canton participates in a cooperative one-plus-one program with the Ranger School at the SUNY College of Environmental Science and Forestry at Wanakena. Students who select this career goal complete one year at SUNY Canton and one year at Wanakena, where they will choose between two academic concentrations, Surveying or Forest Technology. The degree of Associate in Applied Science is awarded upon graduation from SUNY College of Environmental Science and Forestry. Graduates are prepared to seek career positions as forest technicians, surveyors, and forest rangers.

Students pursuing this program are admitted to SUNY Canton for the first year of enrollment and application must be made to SUNY ESF for the second year. Application to SUNY College of Environmental Science and Forestry for the Wanakena program can

be made prior to SUNY Canton or during the first semester of enrollment at SUNY Canton.

ADMISSIONS REQUIREMENTS:

- Prepared to take College Biology I —NYS Regents Biology score ≥ 75 ; or —Already passed Intro. to Biology or Introduction to Human Biology
- Prepared to take at least Intermediate Algebra

The following is the recommended first-year course of study for transfer to SUNY College of Environmental Science and Forestry at Wanakena.

(Curriculum 0620)

Semester I	Credits
BIOL 150 College Biology I.....	4
ECON 101 Principles of Macroeconomics	3
ENGL 101 Expository Writing	3
General Elective*	3

MATH 106 Intermediate Algebra OR	
MATH 121 College Algebra	3-4
	16-17

Semester II

BIOL 155 College Biology II.....	4
English w/ a focus on writing	3
MATH 131 College Trigonometry OR	
MATH 121 College Algebra OR	
General Elective.....	3-4
General Elective.....	3
General Elective (GER 3,4,5,6,7)*.....	3
	16-17

Students interested in the Surveying Option take MATH 121 in Semester I and MATH 131 in Semester II; and PHYS 121 with PHYS 125 as an elective in Semester I and ECON 101 in Semester II.

Students planning to continue in the B.S. degree program in Forest Resources Management after earning an A.A.S. degree in Forest Technology take ENGL 101, BIOL 150, CHEM 150, PHYS 121 with PHYS 125 and MATH 121 in first semester; ENGL 221, BIOL 155, MATH 161, HIST 105 and ECON 101 in second semester.

**HIST 103 or HIST 105 strongly recommended as a General Elective*

UPSTATE MEDICAL UNIVERSITY EARLY ADMISSION PROGRAM—

Joint Admission with SUNY Upstate Medical University at Syracuse

Upstate Medical University Early Admissions Program is an early admission program for high school seniors who excel in math and science and are committed to careers in the health professions. Students accepted into the program are guaranteed admission into an upper division bachelor/master's degree program at the SUNY Upstate Medical University at Syracuse after attending their first two years at SUNY Canton and completing all admission requirements.

The Upstate Medical University Early Admissions programs are:

- Cardiovascular Perfusion, BS
- Medical Biotechnology, BS
- Medical Technology, BS
- Medical Imaging Sciences, BS or BPS
- Physical Therapy, DPT
- Respiratory Care, BS
- Radiation Therapy, BS or BPS

Interested students need to apply for Liberal Arts and Sciences: General Stud-

ies (Curriculum 0250) program. Call the Office of Admissions 315-386-7123 or 800-388-7123 for further details.

NOTES:

- All science courses must include laboratories.
- Upstate Medical University Early Admissions Program students are required to complete the associate degree and all requirements outlined in the program acceptance letter.
- Accepted students must demonstrate leadership qualities by getting involved in extracurricular activities at SUNY Canton.

Course Descriptions

This represents a listing of courses available to the campus at large. Courses fulfilling General Education Requirements of the ten SUNY knowledge and skill areas are designated as: GER 1-Mathematics; GER 2-Natural Sciences; GER 3-Social Sciences; GER 4-American History; GER 5-Western Civilization; GER 6-Other World Civilizations; GER 7-Humanities; GER 8-The Arts; GER 9-Foreign Language; GER 10-Basic Communication

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BASK Academic Development.....	105	LPNC Licensed Practical Nursing.....	143
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BSAD Business/Management.....	106	MECH Mechanical.....	145
CHEM Chemistry.....	108	MFGT Manufacturing.....	147
CITA Computer.....	109	MINS Management Information Systems.....	148
CONS Civil/Construction.....	113	MSPT Powersports.....	148
DHYG Dental Hygiene.....	117	NURS Nursing.....	148
EADM Emergency Management.....	120	PHED Physical Education.....	150
ECHD Early Childhood.....	121	PHIL Philosophy.....	150
ECON Economics.....	122	PHSC Physical Science.....	150
EDUC Education.....	123	PHTA Physical Therapist Assistant.....	151
ELEC Electrical.....	123	PHYS Physics.....	152
ENGL English.....	128	POLS Political Science.....	153
ENGS Engineering Science.....	131	PSYC Psychology.....	153
ESCI Environmental Science.....	131	SOCI Sociology.....	154
FREN French.....	132	SOET School of Engineering Technology.....	154
FSAD Funeral Services.....	132	SPAN Spanish.....	156
FSBT Forensic Science.....	133	SPCH Speech.....	156
FSMA Finance.....	133	SPMT Sports Management.....	156
FYEP First Year Experience.....	134	SSCI Social Science.....	157
GEOG Geography.....	134	TMMA Facilities Operation.....	159
GEOL Geology.....	134	VSCT Veterinary Technology.....	159
GMMD Graphic and Multimedia Design.....	134	WMST Women's Studies.....	161
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ACCT 101 **FOUNDATIONS OF FINANCIAL** **ACCOUNTING**

Fall/Spring, 4 credit hours

Basic accounting concepts and principles for the sole proprietorship and merchandising company are introduced with a concentrated emphasis on the accounting cycle and the preparation of financial statements. Four hours lecture per week.

ACCT 102 **FOUNDATIONS OF MANAGERIAL** **ACCOUNTING**

Fall/Spring, 3 credit hours

The basic principles of accounting are continued with their application to partnerships and corpora-

tions. Topics included are inventories, depreciation, payroll, formation, operation and liquidation of partnerships and corporations. Three hours lecture per week. Prerequisite: Foundations of Financial Accounting (ACCT 101) or permission of instructor.

ACCT 103 **COMPUTERIZED ACCOUNTING**

Fall/Spring, 3 credit hours

Computers are a valuable tool used in the collection, formatting and distribution of data. The student will be exposed to the process and procedures of computerized data collection and reporting using a popular accounting software package. Three hours lecture per week. Prerequisites/corequisites: Intermediate Algebra (MATH 106), Math of Finance (MATH

108), Foundations of Financial Accounting (ACCT 101), Introduction to Information Technology (CITA 110), Foundations of Managerial Accounting (ACCT 102), or permission of instructor.

ACCT 104 **SURVEY OF ACCOUNTING**

Fall/Spring, 4 credit hours

This course is designed for non-business majors who need to develop an understanding of fundamental accounting principles and their application in the business environment. The content surveys both financial and managerial accounting with an emphasis placed on how the information is used in decision making and problem solving. (Course may not be used for credit in any one of the following programs: Accounting,

Course Descriptions: ACCOUNTING, AIR CONDITIONING

Business Administration, Finance, Legal Studies, and Management.) Four hours lecture per week.

ACCT 242 **ACCOUNTING FOR GOVERNMENT AND** **NONPROFIT ORGANIZATIONS** *Fall/Spring, 3 credit hours*

A study of governmental, not-for-profit, health-care and university entities with emphasis on fund accounting, budgets and financial reporting. Three hours lecture per week. Prerequisites: Foundations of Financial Accounting (ACCT 101) and knowledge of spreadsheets or permission of instructor.

ACCT 245 **FORENSIC ACCOUNTING** *Fall/Spring, 3 credit hours*

Forensic Accounting is concerned with the detection and prevention of financial fraud and white-collar crime activities. This course will identify areas of financial risk, develop internal control policies and procedures, as well as define the role of the forensic accountant in the courtroom. Three hours lecture per week. Prerequisites: Foundations of Financial Accounting (ACCT 101) or Survey of Accounting (ACCT 104) or permission of instructor.

ACCT 301 **INTERMEDIATE ACCOUNTING I** *Fall, 3 credit hours*

This 3 credit course is designed to provide the student with knowledge and skills basic to accounting theory and practice and advanced problems pertaining to the foundations of Financial Accounting and the Primary Activities of a Business. Major topics include: financial reporting, review of the accounting cycle, balance sheet and notes to the financial statement, the income statement, the statement of cash flows, earnings management, revenue/receivables/cash cycle, revenue recognition, inventory and cost of goods sold, and debt financing. The essential interrelationship between accounting and the activities of business is stressed throughout the course. The presentation of accounting elements necessary for business decision-making such as operating, financing, investing, earnings management and revenue recognition enhance the learning experience and prepare students for an evolving accounting profession. Accompanying accounting problems and various financial statements challenge students to develop critical thinking skills and promote core competencies. International Financial Reporting Standards are discussed when relevant to help students understand how accounting practices differ from country to country and reflect the increasingly global nature of business. Three lecture hours per week. Prerequisites: Foundations of Managerial Accounting (ACCT 102) or permission of instructor.

ACCT 302 **INTERMEDIATE ACCOUNTING II** *Spring, 3 credit hours*

This 3 credit course is designed to provide the student with a real world perspective that links accounting functions with the activities of business. This course focuses on how accounting is intrinsically linked to central business activities: Operating, Financing and Investing. Major topics include financing activities, investing activities, leases, income taxes, interim reporting, earnings per share, accounting changes and

error correction. Intermediate Accounting II provides a thoroughly engaging and comprehensive learning experience that helps develop essential understanding, critical thinking, and analytical skills. Accounting's integral importance to an organization's decision-making capabilities is stressed and accounting is presented as an essential element in business decision-making. Accompanying accounting problems and various financial statements challenge students to develop critical thinking skills and promote core competencies. International Financial Reporting Standards are discussed when relevant to help students understand how accounting practices differ from country to country and reflect the increasingly global nature of business. Three lecture hours per week. Prerequisites: Intermediate Accounting I (ACCT 301) or permission of instructor.

ACCT 305 **ACCOUNTING THEORY & PRACTICE** *Spring, 3 credit hours*

This course is designed to assess and reinforce the skills necessary to enter the workplace as an entry-level employee in the field of accounting. The students will maintain a complete set of books and related financial statements, through an accounting cycle, both manually and electronically. Students will use previously prepared financial statements to make informed judgments, solve problems, identify and apply ethical positions and effectively communicate this information to others both orally and in writing. Three hours lecture per week. Prerequisites/corequisites: Intermediate Accounting I (ACCT 203), Management Communications (BSAD 340), Introduction to Information Technology (CITA 110), Introduction to Finance (FSMA 210), Intermediate Algebra (MATH 106), or Math of Finance (MATH 108), or permission of instructor.

ACCT 306 **COST ACCOUNTING** *Fall, 3 credit hours*

This course is designed to expose the student to formal systems of data compilation and reporting which are essential to formulating and achieving management goals and objectives in both manufacturing and service enterprises. Three lecture hours per week. Prerequisites: Intermediate Algebra (MATH 106), Math of Finance (MATH 108), or permission of instructor.

ACCT 310 **ACCOUNTING INFORMATION SYSTEMS** *Fall/Spring, 3 credit hours*

This course will utilize an accounting software system complimented by a manual accounting information system. Heavy emphasis is placed on section 404 requirements of the Sarbanes-Oxley Act of 2002. The importance of proper documentation, internal controls, enterprise systems, and E-business sets the stage for this course. Students will prepare the necessary documents, journal entries, reconcile accounts, and prepare financial statements for an entire accounting cycle. Three hours lecture per week. Prerequisites: Foundations of Managerial Accounting (ACCT 102), or permission of the instructor.

ACCT 335 **INDIVIDUAL TAXATION** *Fall, 3 credit hours*

This course is designed to introduce students to the Internal Revenue Code, preparation of tax returns for individuals and small businesses. The course prepares students to participate in the IRS Volunteer Income Tax Assistance (VITA) program. Three hours lecture per week. Prerequisites: Intermediate Algebra (MATH 106) and Introduction to Information Technology (CITA 110), or permission of the instructor.

ACCT 430 **AUDITING** *Fall/Spring, 3 credit hours*

This course is designed to expose the student to the vocabulary, concepts, principles, and techniques of auditing. Emphasis is placed on the use of Generally Accepted Auditing Standards and their practical application to professional standards, ethics, internal controls, legal liability, audit planning, audit evidence, audit sampling, and the production of standard reports. Three hours lecture per week. Prerequisites: Intermediate Accounting I (ACCT 301) or permission of instructor.

ACCT 440 **ADVANCED ACCOUNTING** *Fall/Spring, 3 credit hours*

Advanced accounting issues include the following topics: consolidations, mergers and acquisitions, governmental and nonprofit organizations, foreign currency transactions, and partnerships. Three hours lecture per week. Prerequisites: Intermediate Accounting I (ACCT 301) or permission of instructor.

ACCT 291-295, 391-395, OR 491-495 **SPECIAL TOPICS IN ACCOUNTING** *Fall/Spring, 1-4 credit hours*

Special Topics in Accounting will generally include topics of current interest or topics not covered in courses currently offered by the Department or in combinations not currently available. Prerequisite: permission of the instructor.

ACHP 101 **REFRIGERATION I** *Fall, 2 credit hours*

Basic thermodynamic principles are used to study the vapor compression refrigeration cycle and the function of each of its major components. This includes the evaporator, compressor, condenser, and flow metering devices. Two hours lecture per week.

ACHP 103 **REFRIGERATION AND AIR** **CONDITIONING SERVICES I** *Fall, 7 credit hours*

The fundamentals of refrigerating and air conditioning equipment are the emphasis of this course. Students study the basic refrigeration cycle and the function of each component; compressor, condenser, evaporator and metering device. Use of hand and power tools will be stressed in laboratory work. Students will cut, bend, solder, braze, flare, and swage cooper tubing. Flowing nitrogen will be stressed during brazing operations. Four hours lecture, nine hours laboratory per week.

Course Descriptions: AIR CONDITIONING

ACHP 104 REFRIGERATION AND AIR CONDITIONING SERVICES II

Spring, 7 credit hours

Applications of refrigeration and air conditioning systems are presented along with heat gain calculation, air distribution and filtration and controls. Complete systems including split Dx air conditioners, heat pumps, and packaged systems will be installed. Some sheet metal layout and fabrication will also be performed. Four hours lecture, nine hours laboratory per week. Prerequisite: Refrigeration and Air Conditioning Services I (ACHP 103) or permission of instructor.

ACHP 105 REFRIGERATION SYSTEM DESIGN

Spring, 2 credit hours

The refrigeration system and its components are studied in detail. Components will be sized and selected to meet application requirements and then system equilibrium will be determined. Two hours lecture per week. Prerequisite: Refrigeration and Air Conditioning Services I (ACHP 103); Corequisite: Refrigeration and Air Conditioning Services II (ACHP 104) or permission of instructor.

ACHP 108 MECHANICAL SYSTEMS DRAFTING AND BLUEPRINT READING

Spring, 3 credit hours

In this course, ACAD software will be used to apply fundamental techniques of mechanical systems drafting. It is intended that the student will be exposed to drawing skills needed for communication of ideas in engineering and/or construction. Emphasis will be on common location and representation of mechanical system components. Elements of domestic, commercial and industrial practices as they apply to HVAC, electrical and piping systems will be reviewed. Two hours lecture, three hours laboratory per week. Prerequisite: Computer Drafting (MECH 111) or permission of instructor.

ACHP 111 INTRODUCTION TO HEATING

Fall, 2 credit hours

This course is an introductory course to oil and gas heating systems used in the air conditioning field. It includes a study of heat transfer principles and the combustion process. Warm air, hydronic and radiant systems along with related equipment and controls are studied. Two hours lecture per week.

ACHP 121 AIR CONDITIONING FRESHMAN LABORATORY I

Fall, 1 credit hour

Laboratory experiments related to Refrigeration I and Heat Laboratory are performed. Laboratory work includes combustion testing, electric controls and servicing, and testing of refrigeration systems and components. A writing intensive course. Three hours laboratory per week.

ACHP 171 HEATING AND PLUMBING PRINCIPLES AND PRACTICE I

Fall, 7 credit hours

The fundamentals of heating equipment and

practices; selection, use and care of hand and power tools; piping fabrication of copper, steel, cast iron and plastic pipe; oil burner boiler installation and service; drainage, waste and vent plumbing; basic sheet metal practice; well pumps and accessories. CERTIFICATE/AAS ELECTIVE CREDIT ONLY. Four hours lecture, nine hours laboratory per week.

ACHP 172 HEATING AND PLUMBING PRINCIPLES AND PRACTICE II

Spring, 8 credit hours

Gas burner boiler installations with zoning; furnace installation and service; bathroom and kitchen plumbing installation; sheet metal layout and fabrication; heat loss and gain calculations; electrical schematics, controls, troubleshooting; duct sizing and installation. CERTIFICATE/AAS ELECTIVE CREDIT ONLY. Five hours lecture, nine hours laboratory per week. Prerequisite: Heating & Plumbing Principles and Practice I (ACHP 171) or permission of instructor.

ACHP 181 INTRODUCTION TO ENVIRONMENTAL TECHNOLOGY

Spring, 3 credit hours

This course provides the student without a technical background an opportunity to explore the broad field of Environmental Technology. This includes basic problem solving as applied to situations occurring in everyday living environments. Current issues such as indoor air quality, CFC's, radon, and Legionnaires Disease are discussed and solutions presented through proper design. Each student will be introduced to the various phases of building construction and maintenance so he or she will be able to make rational decisions with regard to building environmental conditions. Three hours lecture per week.

ACHP 215 PLUMBING DESIGN

Fall, 3 credit hours

The theory of sizing and design of hot and cold water lines, drainage and vent lines for residential and commercial sanitary systems. Also a study of basic hydraulics and fluid flow with emphasis on application of various types of water pumping devices. Three hours lecture per week.

ACHP 233 PIPE DRAFTING

Fall, 1 credit hour

Projects include isometric, elevation, plan and detail drawings of piping systems. A computer-aided drafting (CAD) project of a piping system is also included in the course. Three hours laboratory per week. Prerequisite: Engineering Drawing (MECH 118) or permission of instructor.

ACHP 243 AIR CONDITIONING I

Fall, 3 credit hours

The properties of air and water vapor mixtures are determined by calculation and by the use of psychometric charts. Air conditioning processes are analyzed by use of the psychometric chart. Heating loads are calculated for commercial and residential structures. The performance of air conditioning systems and the use of instruments is covered in the laboratory.

Two hours lecture, three hours laboratory per week. Prerequisite: Refrigeration II (ACHP 102) or permission of instructor.

ACHP 244 AIR CONDITIONING II

Spring, 3 credit hours

Cooling loads are calculated for various types of commercial structures. Computers are used to calculate loads. Air conditioning equipment and systems are studied to determine their application to meet load, comfort and energy conservation requirements. The laboratory portion of the course includes the determination, with instruments, of the performance characteristics of cooling coils, heating coils, a water chiller, cooling tower, etc. Two hours lecture, three hours laboratory per week. Prerequisite: Air Conditioning I (ACHP 243) or permission of instructor.

ACHP 253 DOMESTIC AND COMMERCIAL HEATING I

Fall, 4 credit hours

Basic principles of heating systems are studied including continuity relations, the flow energy equation and duct and piping systems design. The equal friction method for piping system design is presented as well as the modified equal pressure, equal friction and static pressure regain methods of duct design. Solutions of both duct systems and piping systems are calculated by manual methods and also by a computer program. Theories presented in lecture are backed up by experiments in the laboratory portion. Flow measurement of both air and water are also covered. Three hours lecture, three hours laboratory per week. Prerequisite: Introduction to Heating (ACHP 111) or permission of instructor.

ACHP 254 DOMESTIC AND COMMERCIAL HEATING II

Spring, 4 credit hours

The selection and application of heating equipment is presented. Furnaces, boilers, pumps, fans, and heat pumps are among the equipment studied. Integration of layout studied in Domestic and Commercial Heating I (ACHP 253) is stressed. Additional topics covered are: ventilation requirements, proper air distribution, balancing procedures (air & water), primary-secondary pumping, energy cost calculations and air filtration. Laboratory experiments are designed to emphasize the topics covered in lecture. Three hours lecture, three hours laboratory per week. Prerequisite: Domestic and Commercial Heating I (ACHP 253) or permission of instructor.

ACHP 264 AIR CONDITIONING SYSTEMS DESIGN

Spring, 1 credit hour

Air conditioning systems are designed for specific buildings, equipment selected, working drawings made and specifications written. Three hours laboratory per week. Prerequisites: Pipe Drafting (ACHP 233), Air Conditioning I (ACHP 243), Domestic and Commercial Heating I (ACHP 253) or permission of instructor.

Course Descriptions: ANTHROPOLOGY, ALTERNATIVE & RENEWABLE ENERGY

ACHP 306 ENERGY SYSTEMS TECHNOLOGY *Fall, 3 credit hours*

Cooling, heating, ventilating, humidification, dehumidification, and cleaning equipment and systems as applied to buildings will be studied. Laboratory equipment will be used to demonstrate air conditioning processes, equipment, and systems. Human comfort requirements, indoor air quality, air conditioning loads, equipment maintenance schedules and energy conservation will be studied. Emphasis will be on maintaining a comfortable, healthy environment, economically and efficiently with well-maintained equipment. Topics to be covered will also include pump and fan curves, duct and piping systems design methods, constant volume and VAV systems, and hot water and steam heating systems. Three hours lecture per week. Prerequisites: Basic Calculus (MATH 122), General Physics II (PHYS 102).

ACHP 323 HVAC EQUIPMENT AND SELECTION *Fall/Spring/Summer, 3 credit hours*

This course includes the selection and layout of modern HVAC equipment for commercial buildings. Special concern is applied to ASHRAE Standards, codes and cost analysis. Three hours lecture per week. Prerequisites: Domestic and Commercial Heating II (ACHP 254), or permission of instructor.

ACHP 324 HVAC LOAD CALCULATION *Fall/Spring, 3 credit hours*

This course introduces the student to the principles and methods of calculating the heating and cooling load of an HVAC system for residential and commercial buildings. The student learns how to design the HVAC systems following the codes and standards of ASHRAE publications. Energy efficiency and conservation are incorporated into the system design for optimal performance. The course is emphasized on computer-based calculations. Computer-assisted calculation and practice are carried out throughout the course. Three hours lecture per week. Prerequisite: Refrigeration I (ACHP 101); Corequisites: Thermodynamics (MECH 342), Heat Transfer (MECH 343), or permission of instructor.

ACHP 401 BUILDING AUTOMATION SYSTEMS *Fall, 3 credit hours*

This course presents detailed study of building automation controls as applied in our modern facilities. Integration of building environmental control along with life safety, security, and maintenance functions are studied. The various proprietary protocol, as well as BACNET are presented. Digital and analog inputs to central and remote processors which in turn control devices to maintain building environmental conditions, safety, and security will be studied. Networking topics studied in prerequisite courses will be integrated into the application of these automation systems. Students will work with software to operate these systems as well as specify equipment to meet the goals within the facility. Three hours lecture per week. Prerequisite: Data Communications and Networking (CITA 200), and Energy Systems Tech. (ACHP 306) or Air Conditioning II (ACHP 244), or permission from instructor.

ACHP 412 ENERGY ANALYSIS AND AUDIT *Fall/Spring, 3 credit hours*

This course provides skills to perform an energy analysis of future commercial buildings and the audit of existing building through the study of energy standards and codes use in the United States. HVAC and architectural drawings are reviewed through case studies and actual buildings are audited providing students with the necessary skills to reduce energy cost in the future of building development. Three hours lecture per week. Prerequisites: HVAC Load Calculation & Energy Code (ACHP 324), or permission of instructor.

ACHP 415 COMMISSIONING OF MECHANICAL SYSTEMS *Fall/Spring, 3 credit hours*

This course explores the modern building practice of implementing a quality-oriented process for achieving, verifying, and documenting that the performance of facilities, systems, and assemblies. Students develop and analyze the owner's project requirements and translate these requirements into a commissioning plan. Students will transform the commissioning plan into an operational and maintenance plan for the building owner and operators. Three hours lecture per week. Prerequisite: HVAC Load Calculation & Energy Code (ACHP 324), or permission of instructor.

ACHP 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN AIR CONDITIONING ENGINEERING TECHNOLOGY *Fall/Spring, 1-4 credit hours*

Special Topics in Air Conditioning Engineering Technology will generally include topics of current interest or topics not covered in courses currently offered by the Department or in combinations not currently available. Prerequisite: permission of the instructor.

ANTH 101 INTRODUCTION TO PHYSICAL ANTHROPOLOGY AND ARCHAEOLOGY *Fall/Spring, 3 credit hours*

Introduction to Physical Anthropology and Archaeology provides an overview of the theory of evolution, the genetic basis of variation, the fossil record leading to and including human evolution, basic issues of method and theory in archaeology, selected topics in prehistory. Three hours lecture per week.

ANTH 102 INTRODUCTION TO CULTURAL ANTHROPOLOGY *Fall/Spring, 3 credit hours*

A global, cross-cultural overview of the diversity of human organization, achievements and institutions. Emphasis will be placed on non-western, nonindustrialized societies and a regional development approach to selected cultural areas. The theory, concepts and methods of cultural anthropology will provide the foundation for understanding this diversity and the historic journey which has produced the mosaic of culture. Three hours lecture per week.

ANTH 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN ANTHROPOLOGY *Fall/Spring, 1-4 credit hours*

An introductory or more advanced exploration of subjects not covered or only partially covered by other courses in anthropology.

AREA 110 INTRODUCTION TO ALTERNATIVE ENERGY *Fall, 3 credit hours*

Students will discuss the usefulness of various types of energies as they relate to the future of this planet. Topics will include passive and active solar systems, fuel cells, hydroelectric power, geothermal heat transfer, and wind energy. Three hours lecture per week.

AREA 300 FUEL CELLS *Fall/Spring, 3 credit hours*

Students will discover the science involved in the operation of fuel cells and technical applications of a fuel cell in providing electricity and heat. Topics explored are hydrogen as a fuel, energy efficiency, and operational characteristics of a fuel cell. In depth studies of proton exchange membrane, alkaline electrolyte fuel cells, and direct methanol fuel cells will teach students about the conversion of hydrogen fuel to useable forms of energy. Prerequisites: Intro. to Thermodynamics (MECH 225), College Chemistry I (CHEM 105) and junior level status or permission of instructor.

AREA 303 WIND TURBINES *Fall/Spring, 3 credit hours*

This course is an introduction to issues related to the production of electricity from wind power. The study of the atmospheric science necessary to locate wind turbines for the production of electricity will teach students how to interpret data. In addition, the study of design and control will allow for a comprehensive knowledge of all sub-components of a wind turbine. A complete analysis of all the technology utilized in the production of electricity will assist students in knowing the details involved in sizing and citing of wind turbines. Prerequisites: Electricity (ELEC 261) and Electrical Energy Conversion and Power Systems I (ELEC 221) or permission of instructor.

AREA 310 BIOFUELS *Fall/Spring, 3 credit hours*

This course covers alternative, renewable fuels derived from biological sources and their applications as an energy source for homes, industry and transportation. Wood, urban, and agricultural solid waste are discussed as potential sources of energy conversion. In addition, the production of methane and alcohol based fuels and their roles as a transportation fuel will lead to a re-discovery of opportunities to replace fossil-based fuels. Bio-diesel and vegetable oil topics are necessary to show a true alternate energy source for internal combustion engines. Throughout this course, students will examine both advantages and disadvantages of biofuels as an energy source. Prerequisites: Intro. to Chemistry (CHEM 101) and junior level status or permission of instructor.

Course Descriptions:ALT. & RENEWABLE ENERGY, ASTRONOMY, AUTOMOTIVE

AREA 320 EXPERIMENTATION & MEASUREMENT I *Fall, 3 credit hours*

In this laboratory course, students will learn experimental methods, instrumentation for engineering measurements, statistical estimates of experimental uncertainty, and calibration techniques. Students will perform laboratory experiments that are applicable to energy systems as well as to broader engineering applications. This course serves as the foundation for higher level lab and design courses in this curriculum. Three two-hour laboratories per week. Prerequisites: Computer Applications for Technicians (SOET 110), Basic Calculus (MATH 122), College Physics II (PHYS 104), Fluid Mechanics (MECH 241), Programming for Engineers (ENGS 102) or permission of instructor.

AREA 321 SOLAR ENERGY UTILIZATION *Fall, 3 Credit hours*

Solar Energy Utilization is an introductory course on solar energy with an emphasis on thermal processes. Topics include solar radiation, heat transfer, flat-plate collectors, thermal energy storage, and solar thermal applications. Three hours lecture per week. Prerequisite: Introduction to Thermodynamics (MECH 225) or permission of instructor.

AREA 322 PASSIVE SOLAR BUILDING *Spring, 3 Credit hours*

Passive Solar Building explores the use of solar energy to passively heat and cool buildings. Topics include solar radiation, building heating and cooling loads, energy efficient design and construction, passive solar heating, proper implementation of thermal mass, and passive cooling. Three hours lecture per week. Prerequisites: Introduction to Thermodynamics (MECH 225), Energy Systems Technology (ACHP 306), or permission of instructor.

AREA 323 PHOTOVOLTAIC SYSTEMS *Fall, 3 Credit hours*

Photovoltaic Systems examines the direct conversion of solar energy to electricity. Topics include photovoltaic (PV) cell physics, types of PV cells, PV system components, and PV energy storage. Three hours lecture per week. Prerequisite: Introduction to Thermodynamics (MECH 225) or permission of instructor.

AREA 320 EXPERIMENTATION & MEASUREMENT II *Spring, 3 credit hours*

In this laboratory course, students will perform engineering measurements to acceptable standards. They will also choose the method of measurement to achieve the accuracy necessary for use in alternative energy experiments. A hands-on approach will furnish practical knowledge of the operation of various alternative energy devices and diagnostic tools. The labs will reflect topics discussed in the AREA electives. Three two-hour laboratories per week. Prerequisites: Experimentation & Measurement I (AREA 320) or permission of instructor.

AREA 400 AUTOMOTIVE APPLICATIONS FOR FUEL CELLS

Fall/Spring, 3 credit hours

This course addresses the fundamentals of fuel cell technology as it applies to the transportation industry, and the reforming of hydrocarbon fuels to hydrogen. It includes the coverage of all fuel cell technologies viable for mobile applications as well as an in depth look at major automotive manufacturers' research into practical vehicles. Students will build small-scale fuel cell powered cars as a final project. Prerequisites: Fuel Cells (AREA 300), Intro. to Thermodynamics (MECH 225).

AREA 420 ALTERNATIVE ENERGY DESIGN I *Fall, 3 credit hours*

Each student team will be required to apply engineering theory in the design of alternative energy systems for residential and commercial buildings. The experience provided in the laboratory projects will allow teams to assess critical factors affecting real applications in alternative energy. Three two-hour laboratories per week. Prerequisites: Experimentation & Measurement II (AREA 370).

AREA 470 ALTERNATIVE ENERGY DESIGN II *Spring, 3 credit hours*

This laboratory is a continuation of AREA 420, Alternative Energy Design I. Student teams will apply design theories to develop alternative energy systems for actual residential or commercial buildings. Using the experience gained from AREA 420, students will go to the site of the proposed alternative energy system to examine the critical factors for design consideration. This course will require periodic interim reports and a final report to be submitted to the instructor and the potential owners of the proposed system. Students will create a complete project design package by the end of the semester. Three two-hour laboratories per week. Prerequisites: Alternative Energy Design I (AREA 420) or permission of instructor.

ASTR 101-Lecture, 3 credit hours

ASTR 102-Lab, 1 credit hour

ASTRONOMY OF THE SOLAR SYSTEM

Fall

GER 2

This course is an introduction to the science of astronomy and is a study of our immediate neighborhood in the universe, the solar system. Topics included are the appearance of the sky, the earth as a planet, light, telescopes and their applications, the physics nature of the planets, the motion and surface of the moon, lesser bodies in the solar system, evolution of the solar system and the possibilities for extraterrestrial life. Three hours lecture per week. If lab is elected, an additional two hours laboratory per week is required. Recommended prerequisite: high school algebra or equivalent.

ASTR 103-Lecture, 3 credit hours

ASTR 104-Lab, 1 credit hour

STELLAR ASTRONOMY

Spring

GER 2

This is a survey course examining the structure, evolution and classification of stars. Topics covered will include the history of astronomy, the sun, classification

of stars, multiple star systems, birth and death of stars, gravitational collapse, pulsars, black holes, galaxies, quasars, special theory of relativity, and cosmology. An observation project is also required. Three hours lecture per week. If lab is elected, an additional two hours laboratory per week is required. Recommended prerequisite: high school algebra or equivalent.

ASTR 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN ASTRONOMY

Fall/Spring, 1-3 credit hours

Special Topics in Astronomy will generally include topics of current interest or topics not covered in courses currently offered by the Department or in combinations not currently available.

AUTO 101 AUTOMOTIVE SERVICES *Fall, 2 credit hours*

Automotive Services is an introductory course in vehicle systems theory of operation and maintenance. Topics include automotive shop procedures involved in general maintenance of vehicles related to suspension, engine, and driveline. Safety and customer relations skills will also be stressed. Students who have successfully completed a high school vocational program in Automotive Mechanics/Technology may be eligible for transfer credit. Two hours lecture per week.

AUTO 102 DIESEL ENGINES *Spring, 2 credit hours (elective)*

A course which considers the basic construction of the diesel engine. Topics will include classification of diesel engines, fuels, turbochargers, injection systems, and pre-heater systems. Laboratory will consist of hands-on experience in engine troubleshooting, parts identification, adjustments and testing. One hour lecture, two hours laboratory per week. Prerequisite: Automotive Services (AUTO 101) and (AUTO 111), or permission of instructor.

AUTO 103 AUTOMOTIVE AIR CONDITIONING *Spring, 2 credit hours (elective)*

A study of the component parts of automotive air conditioning systems, their function and operation. Laboratory will consist of hands-on experience in testing, evacuation, and charging of the system. Refrigerant identification, safety, and environmental issues are addressed, along with fundamentals of manual and automatic controls. One hour lecture, two hours laboratory per week. Prerequisite: Automotive Electrical Systems (AUTO 112) and (AUTO 122), or permission of instructor.

AUTO 104 BASIC WELDING *Fall/Spring, 2 credit hours*

This course includes all basic processes and procedures in joining and cutting ferrous and non-ferrous metals found in automotive/industrial applications using the latest tools and equipment. Focus will include safety, proper techniques, and quality control. One hour lecture, two hours laboratory per week.

Course Descriptions: AUTOMOTIVE

AUTO 111 AUTOMOTIVE SERVICES LABORATORY *Fall, 1 credit hour*

Topics include automotive shop procedures involved in general maintenance of vehicles related to suspension, engine, and driveline. Additional information addresses New York State inspection. Students who have successfully completed a high school vocational program in Automotive Mechanics/Technology may be eligible for transfer credit. Two hours laboratory per week. Corequisite: Automotive Services (AUTO 101) or permission of instructor.

AUTO 112 AUTOMOTIVE ELECTRICAL SYSTEMS *Fall, 3 credit hours*

A study of fundamental electrical relations and circuits as applied to the automobile. Topics include series, parallel, and series-parallel circuits; magnetism, direct and alternating current fundamentals; battery, charging, and starting, systems. Three hours lecture per week.

AUTO 113 ENGINE PERFORMANCE I *Spring, 3 credit hours*

The classroom component of this course introduces the student to fuel and ignition systems. Basic electricity/electronic skills and knowledge are applied in addressing the theory involved in sophisticated electronic ignition and fuel-injection systems. Students study primary switching through secondary firing. Topics include basic circuitry, hall-effect and transistor theory, solenoids, fuel injection (both throttle body and multi-port) and electronic engine management (powertrain control). Three hours lecture per week. Prerequisite: Automotive Services (AUTO 101) and (AUTO 111), Automotive Electrical Systems (AUTO 112) and (AUTO 122), or permission of instructor.

AUTO 114 ENGINE PERFORMANCE I LABORATORY *Spring, 1 credit hour*

The laboratory component of this course consists of hands-on activities involving theories learned in the classroom. Students use service information, both hard-copy and electronic (CD-ROM-), while testing systems with digital volt/ohm meters and computer scanners. Fuel and powertrain control systems are diagnosed with the latest tools available. Three hours laboratory per week. Prerequisite or Corequisite: Engine Performance I (AUTO 113), or permission of instructor.

With the completion of both components of Engine Performance I, (AUTO 113 and AUTO 114) students will be able to diagnose and repair a vehicle with a no-start condition resulting from a fuel or ignition problem. The student will be able to access vehicle computer information, including inputs, outputs, and miscellaneous tests.

AUTO 122 AUTOMOTIVE ELECTRICAL SYSTEMS LABORATORY *Fall, 1 credit hour*

The laboratory component of this course consists of hands-on activities involving theories learned in the classroom. Students use service information, both hard-copy and electronic (CD-ROM-). Testing

involves batteries; series, parallel, and series-parallel circuits, as well as charging and starting systems component identification and service. Three hours laboratory per week. Prerequisite or Corequisite: Automotive Electrical Systems (AUTO 112), or permission of instructor.

AUTO 141 AUTOMOTIVE BRAKING SYSTEMS *Spring, 3 credit hours*

This course consists of theory and operation in the following automotive areas: clutch, manual transmissions, drivelines, and rear axle, as well as basic disc and drum braking systems. Three hours lecture per week. Prerequisite: Automotive Services (AUTO 101), or permission of instructor.

AUTO 144 AUTOMOTIVE BRAKING SYSTEMS LABORATORY *Spring, 1 credit hour*

This course consists of service and repair in the following automotive areas: clutch, manual transmissions, drivelines, and rear axle, as well as basic disc and drum braking systems. Use of specialized service equipment and procedures is stressed in the laboratories. Three hours laboratory per week. Prerequisite or Corequisite: Automotive Services (AUTO 101) and (AUTO 111), Automotive Drivelines and Brakes (AUTO 141), or permission of instructor.

AUTO 150 PERSONAL MOTORSPORT PERFORMANCE AND REPAIR *Fall/Spring, 2 credit hours*

A study of compact, high-performance engine operation, theory and construction with emphasis on performance modifications. Two-stroke theory and repair including carburetor jetting, exhaust tuning, cylinder porting, and crankshaft repair will be included. Laboratory will consist of hands-on application of the listed topics. One hour lecture, two hours laboratory per week. Prerequisite: approval of the instructor; Automotive Technology seniors will be given priority.

AUTO 212 AUTOMOTIVE ELECTRICAL SYSTEMS II *Fall, 4 credit hours*

This course begins where Automotive Electrical Systems terminates. Topics covered include lighting, gauges, warning devices, driver information systems, horn and wiper operations, and electrical accessory diagnosis and repair. Three hours of lecture and three hours of laboratory per week. Prerequisites: Automotive Electrical Systems (AUTO 112) or permission of instructor.

AUTO 213 ENGINE PERFORMANCE II *Fall, 4 credit hours*

This course begins where Engine Performance I terminates. Sophisticated engine control systems are studied which include distributorless ignition, electronic spark control and emission controls. The student learns and applies knowledge of the integration of the listed systems and the powertrain/engine control computer (PCM). Diagnosis and repair includes use of the latest tools and test equipment, digital volt/ohm meters, oscilloscopes, and interactive computer scan-

ners. Students continually utilize the latest automotive reference materials in diagnosis and repair procedures. Three hours lecture, three hours laboratory per week. Prerequisites: Automotive Electrical Systems (AUTO 112) and (AUTO 122), Engine Performance I (AUTO 113) and (AUTO 114), or permission of instructor.

AUTO 214 AUTOMOTIVE COMPUTER SYSTEMS *Spring, 3 credit hours*

Review of electrical and electronic devices used in automobiles. Study of on-board diagnostic systems for both domestic and import vehicles. Diagnosis of computerized automotive systems. A writing intensive course. Two hours lecture, two hours laboratory per week. Prerequisites: Automotive Services (AUTO 101) and (AUTO 111), Automotive Electrical Systems (AUTO 112) and (AUTO 122), Engine Performance II (AUTO 213), Internal Combustion Engines (AUTO 220), or permission of instructor.

AUTO 220 INTERNAL COMBUSTION ENGINES *Fall, 4 credit hours*

Concerns the principles of operation of the gasoline internal combustion engine. Each student participates in an actual engine overhaul, including measuring to factory specifications and machining operations with the latest tools and equipment. Designed for Automotive Technology majors principally, applicants from other curricula will be interviewed by department personnel. Tool kit required. Two hours lecture, four hours laboratory per week. Prerequisites: Automotive Services (AUTO 101) and (AUTO 111), Automotive Electrical Systems (AUTO 112) and (AUTO 122), Engine Performance I (AUTO 113) and (AUTO 114), or permission of instructor.

AUTO 221 AUTOMATIC TRANSMISSIONS *Spring, 4 credit hours*

Fundamental principles of automatic transmissions including adjustments, repairs, and on-vehicle testing. Each student will participate in an actual overhaul of an automatic transmission. This project is tested for operation and efficiency on a transmission dynamometer. Three hours lecture, three hours laboratory per week. Prerequisites: Automotive Electrical Systems (AUTO 112) and (AUTO 122), Engine Performance I (AUTO 113) and (AUTO 114), Engine Performance II (AUTO 213), Automotive Drivelines and Brakes (AUTO 141) and (AUTO 144), or permission of instructor.

AUTO 225 MANUAL TRANSMISSIONS AND DRIVETRAIN *Fall, 3 credit hours*

Topics include transmission theory, design, and operation of manually shifted front-wheel and rear-wheel drive transmissions in automotive applications. Related topics necessary to include with transmissions also include axles, drive shafts, differentials, universal joints, transfer cases, and the manual and electronic controls associated with each. Students receive equal lecture and lab sessions. Three hours lecture per week. Prerequisites: Automotive Service (AUTO 101), Automotive Service Lab (AUTO 111), Automotive Braking Systems (AUTO 141), Automotive Braking

Course Descriptions: ACADEMIC DEVELOPMENT, BIOLOGY

Systems Lab (AUTO 144), Basic Welding (AUTO 104), or permission of instructor.

AUTO 230 SERVICE MANAGEMENT AND OPERATIONS

Spring, 1 credit hour

This seminar type course will meet to discuss topics such as satisfaction, shop management, management techniques, equipment purchase/utilization and dealership structure. Students will perform interviews and write about their findings. Each student will write five research papers from a list of topics concerning the automotive repair business. Weekly summaries from trade journals will be completed. These will relate to topics in Automotive Service Management. One hour lecture per week. Prerequisites: Automotive Electrical Systems (AUTO 112) and Engine Performance II (AUTO 213), or permission of instructor.

AUTO 241 SUSPENSION DESIGN AND SERVICES

Fall, 2 credit hours

This course covers theory, diagnostic and service procedures used in suspension and steering systems. Two hours lecture per week. Prerequisite: Automotive Services (AUTO 101), or permission of instructor.

AUTO 282 SUSPENSION DESIGN AND SERVICES LABORATORY

Fall, 1 credit hour

This course covers diagnostic, repair, and adjustment procedures used in suspension and steering systems. Proper use of suspension and steering tools and equipment is covered, including computerized alignment equipment. Three hours laboratory per week. Prerequisite: Automotive Services (AUTO 101) and (AUTO 111), or permission of instructor.

AUTO 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN AUTOMOTIVE TECHNOLOGY

Fall/Spring, 1-4 credit hours

Special Topics in Automotive Technology will generally include topics of current interest or topics not covered in courses currently offered by the Department or in combinations not currently available. Prerequisite: permission of the instructor.

BASK 051 COLLEGE SUCCESS STRATEGIES

Fall/Spring, 1 credit hour

This course is designed to help students successfully make the transition to college while developing a sense of responsibility for their own learning. Students will practice a set of learning strategies focusing on such topics as time management, note-taking, textbook reading/memory improvement, goal setting, test preparation/taking, and critical thinking. Students will learn and demonstrate basic library research skill, computer skills, and explore/identify personal learning styles, values, career choice, and attitudes toward diversity. Two hours lecture per week. Required of all first-time EOP students. Credit in some certificates only.

BASK 060 FRESHMAN SEMINAR

Fall/Spring, 1 credit hour

This course is designed to help students with the transition into college. Topics will include a study behavior inventory, goal setting, time management, campus resources, learning styles, test taking, note taking, memorization strategies, and other information useful in becoming a successful college student. Two hours laboratory per week. Admission into this class is by permission of the instructor. Graduation credit for some certificates only.

BASK 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN ACADEMIC DEVELOPMENT

Fall/Spring, 1-4 equivalent credit hours

An introductory or more advanced exploration of topics not covered or only partially covered by other courses currently available. The course will be specified in the semester class schedule. Students may take two special topics courses for preparatory credit/credit as long as the topic is different.

BIOL 101 INTRODUCTION TO BIOLOGY

Fall/Spring, 4 credit hours

GER 2

A study of the major concepts in the life sciences presented for the non-major. Subjects covered include an overview of the basic concepts of plants and animals, including human biology, with attention given to cellular processes and the relationship between form and function. Three hours lecture, two hours laboratory per week. The laboratory includes dissection of a representative vertebrate. Intended for students receiving less than 75 on the New York State Regents Biology examination and/or students not in a science-related program. This course is not transferable as college-level general biology. Cannot be taken for credit by students with credit in Introduction to Human Biology (BIOL 102).

BIOL 102 INTRODUCTION TO HUMAN BIOLOGY

Fall/Spring, 4 credit hours

GER 2

A study of the major concepts in the life sciences presented for the non-major with a focus on the biology of the human organism. Concepts covered include the cell, metabolism, and a review of the systems of the body. Three hours lecture, two hours laboratory per week. The laboratory includes dissection of a representative vertebrate. For those students receiving less than 75 on the New York State Regents Biology examination, or permission of instructor. Cannot be taken for credit by students with credit in Introduction to Biology (BIOL 101).

BIOL 117 HUMAN REPRODUCTION

Spring, 3 credit hours

GER 2

This course will discuss human reproduction from a biological point of view. Topics of interest will include anatomy, reproductive physiology, genetics, conception, embryology, pregnancy and parturition, and disease states. Consideration will be given to medical, psychological, sociological, and legal and ethical perspectives. Three hours lecture per week.

BIOL 150 COLLEGE BIOLOGY I

Fall, 4 credit hours

GER 2

An introduction to the fundamental biological concepts common to plants, animals, and microorganisms. Topics include the chemical and molecular basis of life, metabolism, cell biology, cellular reproduction, mendelian and molecular genetics, gene regulation, DNA technology, and evolution. The laboratory includes the study of cells, osmosis, enzymes, cellular respiration, genetics, molecular techniques, and the dissection of a representative mammal. Three hours lecture, three hours laboratory per week. Prerequisite: New York State Regents Biology examination grade of 75 or above or Introduction to Biology (BIOL 101) or Introduction to Human Biology (BIOL 102); AND HS chemistry or Introduction to Chemistry (CHEM 101) or Investigative Chemistry (CHEM 107); or permission of instructor.

BIOL 155 COLLEGE BIOLOGY II

Spring, 4 credit hours

This course consists of the study of the evolutionary history of biological diversity, plant form and function, animal development, and aspects of animal form and function including the immune system, nerve physiology, homeostasis and chemical signals. The laboratory includes structural and functional studies of representative plants and animals, bacterial transformation, photosynthesis, plant growth and development, and population dynamics. Three hours lecture, three hours laboratory per week. Prerequisite: College Biology I (BIOL 105) or permission of instructor.

BIOL 207 HUMAN ANATOMY

Spring, 4 credit hours

This course is a detailed study of the human body with emphasis on structure with limited general function. Included topics are cells, tissues, skeletal, muscular, digestive, circulatory, respiratory, reproductive, urinary, nervous, endocrine systems and sense organs. The laboratory includes study of cells, tissues, organ systems, and dissection of a representative mammal. The course is most suitable for students in health-related or biology curriculums requiring in-depth knowledge of the human body. Three hours lecture, three hours laboratory per week. Prerequisites: New York State Regents Biology examination score of 75 or above or Introduction to Biology (BIOL 101) or Introduction to Human Biology (BIOL 102) or College Biology I (BIOL 105) or permission of instructor.

BIOL 209 MICROBIOLOGY

Fall/Spring, 4 credit hours

A study of the basic characteristics of microbes, with an emphasis on disease causing organisms. Includes morphology, growth, physiology, and control. Laboratory techniques including microscopy, staining, aseptic technique, culture media, isolation, and identification of microbes. Three hours lecture, two hours laboratory per week. Prerequisite: Introduction to Biology (BIOL 101) or Introduction to Human Biology (BIOL 102) or College Biology I (BIOL 105) or Human Anatomy & Physiology I (BIOL 217); AND HS chemistry or Introduction to Chemistry (CHEM 101) or Investigative Chemistry (CHEM

Course Descriptions: BIOLOGY, BUSINESS

107); or permission of instructor.

BIOL 213 FIELD BIOLOGY AND ECOLOGY

Fall, 3 credit hours

GER 2

This course provides an introduction to the basic ecological principles underlying the interrelationships of living organisms and their environment. The lecture focuses on principles and theory related to adaptation, competition, predation, trophic structure and energy cycles, populations, and ecosystems. The laboratory consists primarily of field visits to various types of ecosystems in the area to provide experience in many of the various techniques employed in collecting and analyzing ecological data. Two hours lecture, three hours laboratory per week. Prerequisite: Introduction to Biology (BIOL 101) or Introduction to Human Biology (BIOL 102) or College Biology I (BIOL 105) or permission of instructor.

BIOL 217 HUMAN ANATOMY & PHYSIOLOGY I

Fall/Spring, 4 credit hours

GER 2

This course is the first course in a sequence which studies the anatomy and physiology of the human body in detail. Topics covered in this first semester course include an introduction to the basic plan and organization of the body, basic biochemistry, basic cell structure and cell physiology and the anatomy and physiology of the integumentary, skeletal, muscular, and nervous systems. The laboratory sessions will explore detailed anatomy using models and specimens, and experimental physiological concepts. This course is appropriate for students in the Nursing, Physical Therapist Assistant, Dental Hygiene and other health-related fields that require a two-semester Anatomy and Physiology sequence. Three hours lecture, three hours laboratory per week. Prerequisites: High School Biology Regents score of 75 or above, Introduction to Biology (BIOL 101) or Introduction to Human Biology (BIOL 102) and High School Chemistry Regents score of 65 or above or Introduction to Chemistry (CHEM 101) or permission of instructor.

BIOL 218 HUMAN ANATOMY & PHYSIOLOGY II

Fall/Spring, 4 credit hours

This is the second in a sequence of two courses that studies the detailed anatomy and physiology of the human body. Topics include the anatomy and physiology of the endocrine, cardiovascular, lymphatic, respiratory, digestive, urinary, and reproductive systems. May also cover the immune system, metabolism, fluid-electrolyte-acid-base balance, and pregnancy and development. The laboratory will include a dissection of the cat. Three hours lecture, three hours lab per week. Prerequisite: Anatomy & Physiology I (BIOL 217) or permission of instructor.

BIOL 225 BIOLOGY IN SOCIETY

Spring, 3 credit hours

This course is designed to develop critical thinking concerning the growing presence of biology in society. Students will apply biological principles and the scientific method to problems and decisions confronting society. Students will use and expand upon their basic biological knowledge of DNA, molecular biology and physiology to discuss the importance and ethical

impact of the use of biology in society. General topics will include DNA technology, stem cells, medicine and forensic applications, specific topics discussed may vary from one semester to the next as new issues or developments warrant. The central goal of the course is to have students leave as highly informed citizens with a greater understanding of the science behind current biological applications. Three hours lecture per week. Prerequisites: a grade of C or higher for one of the following courses or its equivalent: Introduction to Biology (BIOL 101), Introduction to Human Biology (BIOL 102), College Biology I (BIOL 105), Human Anatomy and Physiology I or II (BIOL 217/218), or permission of instructor.

BIOL 310 THE GENOME

Fall, 3 credit hours

This course covers the fundamental concepts of molecular genetics and heredity, as well as mutations, the genetics of sex and gender, the human genome, complex traits, genetic testing, gene therapy, and the near future of human genetics. Besides providing a basis for understanding the current state of human genetic knowledge, future discoveries, and novel applications, a major focus of the course is developing the sophistication necessary to sort out myths and misconceptions about human heredity. Three hours lecture per week. Prerequisites: College Biology I (BIOL 150) or Human Anatomy & Physiology I (BIOL 217) and junior level status, or permission of instructor.

BIOL 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN BIOLOGY

Fall/Spring, 1-4 credit hours

Special Topics in Biology will generally include topics of current interest or topics not covered in courses currently offered by the Department or in combinations not currently available.

BSAD 100 INTRODUCTION TO BUSINESS

Fall/Spring, 3 credit hours

This course is a survey of business, introducing the major operations of a business, including production, marketing, finance, and human resources management. The course also examines the economic, social, and political environment of business. This course will expose students to speakers from varying business disciplines throughout the semester. Three hours lecture per week.

BSAD 120 PRINCIPLES OF BANKING

Fall, 3 credit hours

A comprehensive introduction to the diversified services offered by the banking industry today. This course includes materials on bank accounting, pricing, profitability, bank personnel and security functions. Three hours lecture per week.

BSAD 200 BUSINESS COMMUNICATIONS

Fall/Spring, 3 credit hours

This course is designed to help develop strong oral and written communication skills. The student will be given opportunities to practice writing and editing professional correspondence. Additionally, the student will compose and deliver oral presentations. Assign-

ments will include the use of inductive and deductive approaches to conveying a variety of messages and applying the rules for proper grammar and punctuation. Three hours lecture per week. Writing intensive course. Prerequisites: Oral and Written Expression (English 102) or Expository Writing (English 101), or permission of instructor.

BSAD 201 BUSINESS LAW I

Fall/Spring, 3 credit hours

Text and case study of court system, origin, nature and classification of law with emphasis on specific laws relating to torts and general contract law. Three hours lecture per week.

BSAD 202 BUSINESS LAW II

Spring, 3 credit hours

Continuation of Business Law I. Areas of study include law of sales, commercial paper, agency, partnerships and corporations. Three hours lecture per week. Prerequisite: Business Law I (BSAD 201) or permission of instructor.

BSAD 215 SMALL BUSINESS MANAGEMENT

Fall/Spring, 3 credit hours

This course will examine the nature of small business and the people who are successful in starting them. Topics will include the requirements and steps of conducting a comprehensive pre-business feasibility study, the types of decisions faced by managers of small firms, and the application of business disciplines to these situations. The student will be required to formulate a business plan. Three hours lecture per week. Prerequisite: Expository Writing (ENGL 101), or Oral and Written Expression (ENGL 102), or permission of instructor.

BSAD 220 PRINCIPLES OF RETAILING

Fall, 3 credit hours

A realistic, pragmatic approach to retailing beginning with a study of the retail customer's motives and objectives. The operation of a retail store is studied in depth with emphasis on evaluation of the management alternatives in regard to buying, pricing, sales promotion and advertising. The problems of starting a retail business are also explored. Three hours lecture per week.

BSAD 225 RETAIL ADVERTISING AND SALES PROMOTION

Spring, 3 credit hours

This course entails a study of the major problems and methods of advertising and sales promotion. The social and economic role of promotion will be explored in its relationship to such established disciplines as psychology and sociology. The role of research and other methods of gathering information will also be covered. Prerequisite: Principles of Retailing (BSAD 220) or permission of instructor.

BSAD 230 SALES MANAGEMENT

Spring, 3 credit hours

A study of the sales management structure, process

Course Descriptions: BUSINESS

and personal selling fundamentals. Emphasis is placed on the role of selling in the American economy. The field of selling, selling principles, consumer motivation, sales promotion, management of sales personnel and organizational structure are explored and analyzed. The course is designed to be of fundamental benefit to students in various disciplines throughout the College. Three hours lecture per week.

BSAD 235 BUSINESS AND ACCOUNTING FIELD EXPERIENCE

Fall/Spring, 3 credit hours

This internship provides a hands-on experience working with entrepreneurs and small business owners. Internship opportunities include both business and accounting work environments. Twelve hours flextime per week. Prerequisite: Foundations of Managerial Accounting (ACCT 102) or permission of the instructor.

BSAD 250 REAL ESTATE I

Fall, 4 credit hours

A study of general contract law, real estate contracts, mortgages, agencies, licensing of law, land use and real estate mathematics. Four hours lecture per week.

BSAD 301 PRINCIPLES OF MANAGEMENT

Fall, 3 credit hours

This course employs all key management topics and concepts applicable to all organizations; domestic and international, profit and non-profit, manufacturing and service. It provides instruction in principles of management that have general applicability to all types of enterprises; basic management philosophy and decision making; principles involved in planning, organizing, leading, and controlling with managerial skills and tools used, from an eclectic perspective. It allows a student to transfer this knowledge to practical applications. Prerequisites: Introduction to Business (BSAD 100) or Business Law I (BSAD 201) or Fundamentals of Emergency and Disaster Management (EADM 201) and minimum 30 credit hours with 2.0 GPA or permission of instructor.

BSAD 305 PUBLIC BUDGETING & FISCAL MANAGEMENT

Fall, 3 credit hours

This course exposes students to the technical, political, and administrative elements of the federal, state, and local budgeting process. Topics will include budget formulation, execution, evaluation, and the theoretical basis for decision making that is integral to that process. Three hours lecture per week. Prerequisites: Foundations of Financial Accounting (ACCT 101) or Survey of Accounting (ACCT 104), Introduction to Information Technology (CITA 110); Principles of Macroeconomics (ECON 101) or Principles of Microeconomics (ECON 103) or Introduction to Government and Politics (POLS 101); Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102); Basic Calculus (MATH 122) or Statistics (MATH 141); or permission of instructor.

BSAD 310 HUMAN RESOURCE MANAGEMENT

Fall/Spring, 3 credit hours

This course provides a foundation for the study of human capital management. Topics include job analysis and design, recruiting, training, motivating employees, performance appraisals, current doctrine on employee's rights, responsibilities, and compensation issues. Prerequisites: Introduction to Business (BSAD 100) or Business Law I (BSAD 201) or Fundamentals of Emergency and Disaster Management (EADM 201) or permission of instructor.

BSAD 319/JUST 319 PROFESSIONAL ETHICS

Fall/Spring/Summer, 3 credit hours

This course acquaints students with the major frameworks for ethical decision making in the professions based on Kantian, Utilitarian and Contract ethics and principles: consequence, liberty, opportunity, need, justice and distributive justice. It examines ethical questions that can arise in professional practice, the relationship between professionals and clients as well as the connection between ordinary and professional morality. Students will use analytical tools to recognize and address contemporary ethical dilemmas in the professions: business, criminal justice and computer information systems. Emphasis is placed on utilizing ethical theories that affect thinking, policy formulation, and professional conduct. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) and junior level status, or permission of instructor.

BSAD 335 ADVANCED BUSINESS INTERNSHIP

Fall/Spring/Summer, 3 credit hours

This advanced business internship program is designed as an elective for students, on a space available basis and instructor's permission. Offers hands-on experience working with small business entrepreneurs in a confidential and professional environment. Allows the intern the opportunity to apply their educational, organizational and time management skills in solving real life business issues and assist less experienced interns. An intern's typical workweek would consume 12 hours of flextime, internal and/or external to the SBDC office as directed by business advisors. 180 hours of internship. Prerequisite: NYS/SBDC Business Internship (BSAD 235) and permission of instructor.

BSAD 340/DHYG 340 MANAGEMENT COMMUNICATIONS

Fall/Spring, 3 credit hours

This course introduces students to the foundations of effective management communication. It focuses on communicating strategically and persuasively in a professional environment. Skills such as advocacy, framing issues clearly and strategically, preparing a team for communicating in a competitive environment, facilitating meetings, and adapting arguments to audiences' needs will be developed. Three hours lecture per week. Prerequisites: Business Communications (BSAD 200) or another program specific writing intensive course or the permission of the instructor.

BSAD 345 TECHNOLOGICAL INNOVATIONS AND ENTREPRENEURSHIP

Fall/Spring, 3 credits

Technology entrepreneurship is a spirited approach to business leadership that involves identifying high-potential, technology-intensive commercial opportunities, gathering and analyzing resources such as talent and capital, and managing rapid growth and significant risks using principled decision-making skills. It is a recent global phenomenon that has driven vital changes in society by empowering individuals to seek opportunity in technological and business solutions when presented with what others see as insurmountable problems. This course will introduce the fundamentals of technology entrepreneurship. It is aimed at guiding students who may be starting their own businesses in the future or working for a high-growth company. Three hours lecture per week. Prerequisites: Principles of Macroeconomics (ECON 101), Introduction to Finance (FSMA 210) and Introduction to Information Technology (CITA 110) or permission of instructor.

BSAD 350 MARKETING

Fall/Spring, 3 credit hours

Problems in marketing management and the marketing mix elements of product, price, promotion, and distribution are presented in the context of a dynamic global environment. The impact of legal, political, social, ethical, technological, economic, and competitive factors upon marketing activities are discussed. Three hours lecture per week. Prerequisites: Foundations of Financial Accounting (ACCT 101) and Expository Writing (ENGL 101) or junior level status or permission of instructor.

BSAD 353 CASINO MANAGEMENT

Fall/Spring, 3 credit hours

This course examines the casino industry using real world business examples. Topics that will be covered in this course are casino management strategy, casino marketing, and casino management policies and issues. Within the three major topics, students will explore the accounting and auditing procedures within a casino organization, understand business aspects of slots and table games, examine the implementation of marketing strategies at various casinos and assess the impact of government regulations on the entire U.S. casino industry. Students will evaluate the overall impact of both the external and internal casino environment while formulating strategic plans for casino operations. Three lecture hours per week. Prerequisites: Introduction to Business (BSAD 100), GER Math, and junior level status or permission of the instructor.

BSAD 355 MANAGEMENT OF TECHNOLOGY

Fall, 3 credit hours

The aim of this course is to provide a solid grounding to students interested in managing and appraising various aspects of technology within organizations. This course focuses on the strategic management of technology, patterns of technological change, technological transitions and technological innovations within organizations. The course utilizes cases, lectures, readings, and projects. The conceptual framework

Course Descriptions: BUSINESS, CHEMISTRY

of the course is an evolutionary process perspective on technology management. Course examines the scope of technology management in relation to: design, production, finance, marketing, accounting, sales, distribution and human relations. Three hours lecture per week. Prerequisites: junior level standing or permission of the instructor.

BSAD 365 FINANCIAL STATEMENT ANALYSIS

Fall/Spring, 3 credit hours

This course explores both the underlying theory and practical applications of financial reporting and analysis. It emphasizes the importance of using financial statements as a source of information to evaluate historical and future economic performance. Three hours lecture per week. Prerequisites: Foundations of Managerial Accounting (ACCT 102) or Survey of Accounting (ACCT 104); Introduction to Information Technology (CITA 110), Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102); and Statistics (MATH 141); or permission of instructor.

BSAD 372 E-COMMERCE

Fall/Spring, 3 credit hours

In this course, students will examine the infrastructure and application technologies needed to conduct e-commerce. It will include selecting data mining techniques, making appropriate use of encryption technologies, understanding XML, and participating in online transactions and negotiations. Specialized topics such as technical requirements, virus protection, streaming multimedia, and virtual reality technology will be introduced. The course culminates with research on current developments and their applications to e-commerce. Three hours lecture per week. Prerequisites: Introduction to Information Technology (CITA 110), Expository Writing (ENGL 101), and junior level standing, or permission of instructor.

BSAD 373 INTERNATIONAL BUSINESS MANAGEMENT

Fall/Spring, 3 credit hours

This course enhances the student's ability to operate in a global market. Students will become grounded in global marketing, strategy, human resource management, and finance. Students will develop a strong understanding of international culture and ethical issues when taking a local business global. Students will learn to use an organization's global resources and logistics to enact the organization's global strategy. Prerequisites: Expository Writing (ENG 101) or Oral and Written Expression (ENG 102), or permission of instructor.

BSAD 375 LEADERSHIP AND CHANGE

Fall/Spring, 3 credit hours

This course will provide the student with the tools, understanding and capability to apply modern leadership principles in a changing environment. This course will explore the changing corporate environment, corporate culture, and overcoming resistance to change. Three hours lecture per week. Prerequisites: Principles of Management (BSAD 301) or permission of instructor.

BSAD 400 OPERATIONS/PRODUCTION MANAGEMENT

Fall/Spring, 3 credits

This course will focus on the study of modern theory and practice relating to the operations function in both manufacturing and service organizations. Topics will include forecasting, materials and capacity planning and control. Case studies would be used to examine and analyze the manufacturing and service environments in terms of operational planning, the use of teams and teamwork, and decision making problems that confront management. Fundamentals of the analytical method would be introduced early to help solve problems in the design, operation and control of systems. Three hours of lecture per week. Prerequisites/corequisites: Microeconomics (ECON 103), Principles of Management (BSAD 301), Foundations of Financial Accounting (ACCT 101), Statistics (MATH 141), and junior level status in the Bachelor of Business Administration degree programs or permission of instructor.

BSAD 405 ORIENTATION TO CULMINATING EXPERIENCE

Fall/Spring, 1 credit hour

This course is intended as the precursor to the senior culminating experience in the Bachelor of Business Administration (BBA) program. Seniors will meet with faculty on a weekly basis to discuss resume preparation, job interviewing techniques, on-the-job training, identifying and securing internships, internship requirements and performance assessment/evaluation. This course is a prerequisite to Internship in Business Administration (BSAD 450) and the Senior Project (BSAD 410). One hour lecture per week. Prerequisite: senior level status in Bachelor of Business Administration programs or permission of instructor.

BSAD 410 SENIOR PROJECT

Fall/Spring, 3-15 credits

This course is an alternative to BSAD 450. It is designed for students who are unable to complete a 15-credit internship. Students will complete a senior research project specifically addressing issues under the umbrella of Management. Under the guidance of a faculty mentor, the student will submit a research proposal, conduct research, prepare a thesis style report, and present a defense to a thesis committee. 112.5 to 562.5 project hours. Prerequisites: Introduction to Culminating Experience (BSAD 405) and senior level status in the Management program or permission of the instructor.

BSAD 420 APPLIED ORGANIZATIONAL MANAGEMENT

Fall/Spring, 3 credit hours

Applied Organizational Management emphasizes individuals' and groups' behavior in organizations. The rationale for the existence of organizations is discussed with the strategic objectives of improving productivity, performance, effectiveness and efficiency to accomplish missions. Theories of management and organizations will be examined. Additional topics covered will include group development, group decision making and problem solving, leadership roles, power

and politics within organizations. Other important areas of analysis will be the norms and values of groups, group power influence, coalition formulation and organizational culture. Three hours lecture per week. Prerequisites: Introduction to Business (BSAD 100) and junior level status or permission of instructor.

BSAD 449 STRATEGIC POLICIES & ISSUES

Fall, 3 credit hours

This course defines the criteria for ultimate decision making. Students will examine business strategies in international and domestic operations, and assess the impact of political, economic, and legal factors on business operations and strategies. Focus will be given to actual situation analysis and application of current functional and managerial techniques to a variety of case studies. Three lecture hours per week. Prerequisite: Minimum junior level status (at least 60 credit hours) or permission of instructor.

BSAD 450 BUSINESS INTERNSHIP

Fall/Spring, 6-15 credits

The Business Internship is an academic program, which integrates classroom work and practical experience with cooperating businesses. The internship allows seniors the opportunity to apply classroom learning in corporations. It is a structured field experience in which an intern acquires and applies knowledge and skills, while working in a responsible role within a business environment.

Working with a supervisor, the student will perform prescribed work within an administrative setting. The internship will be tailored to the individual student's career interests and the needs of the supervising organization. Internship assignments and activities may include, but not limited to, information gathering, research, data analysis, planning, organization, implementation, evaluation, and other tasks and responsibilities deemed necessary. Forty hours per week as required. Prerequisites: senior level status in the Management program or permission of instructor. All business courses must be completed before participating in the internship.

BSAD 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN BUSINESS

Fall/Spring, 1-4 credit hours

Special Topics in Business will generally include topics of current interest or topics not covered in courses currently offered by the Department or in combinations not currently available. Prerequisite: permission of the instructor.

CHEM 100 INTRODUCTION TO CHEMISTRY LABORATORY

Fall/Spring, 1 credit hour

GER 2

This is a laboratory course to accompany CHEM 101. The activities and experiments in this course are hands-on applications of the concepts covered in CHEM 101. It is designed for those students who have had little or no chemistry laboratory experience. Students must enroll in both CHEM 101 and CHEM 100 simultaneously, unless they have previously passed one of the courses. Students must also pass both CHEM 101 and CHEM 100 to receive Natural Science General Education credit. Two hours laboratory

Course Descriptions: CHEMISTRY, COMPUTER

per week. Corequisite: Introduction to Chemistry (CHEM 101), or permission of instructor.

CHEM 101

INTRODUCTION TO CHEMISTRY

Fall/Spring, 3 credit hours

GER 2

This is an overview of chemistry which will include atomic structure, English-metric unit conversions, chemical nomenclature, the mole concept, stoichiometry, chemical reactions, physical behavior of gases, solutions, acid-base theory, and nuclear chemistry. It is designed for those students who have little or no chemistry background. Three hours lecture per week. Conditions: For students who did not pass the NYS Chemistry Regents exam (<65), or who did not take HS chemistry. Prerequisite: Beginning Algebra (MATH 100) or high school equivalent, or permission of instructor.

CHEM 107

INVESTIGATIVE CHEMISTRY

Spring, 3 credit hours

GER 2

This is a basic introduction to chemistry designed to cover topics and methods used in forensic science. Topics covered include atomic structure, measurements and conversions, nomenclature, the mole concept, chemical reactions and stoichiometry, solution chemistry, acid-base theory, physical behavior of gases, calorimetry, chemical kinetics and dynamic equilibrium. Also included is the chemistry of explosions, the nature of drug molecules and how they relate to addition, and the use of DNA in analyzing evidence. It is designed for those students who have little or no chemistry background. Conditions: For students who did not pass the NYS Chemistry Regents exam (<65) or who did not take HS chemistry. Three hours lecture per week. Prerequisite: Beginning Algebra (MATH 100) or high school equivalent, or permission of instructor. Corequisite: Investigative Chemistry Lab (CHEM 108) or permission of instructor. A student cannot receive credit for both CHEM 101 and CHEM 107.

CHEM 108

INVESTIGATIVE CHEMISTRY LABORATORY

Spring, 1 credit hour

GER 2

This course is a laboratory course to accompany Investigative Chemistry (CHEM 107). The course provides scientific laboratory experiences in chemistry relevant to forensic science. Each exercise involves the collection of data, manipulation of the collected data, and analysis of the data. Experiments include density of plastic material, chromatographic analysis of ink, types of chemical reactions, factors that affect the rate of chemical reactions, detection of common gases, spectroscopic analysis of analgesics, qualitative analysis of blood and urine, breathalyzer test, detection of blood, heat capacity of building materials, fingerprint development methods, and detection of gunshot residue. Two hours laboratory per week. Corequisite: Investigative Chemistry (CHEM 107), or permission of instructor. A student cannot receive credit for both CHEM 108 and CHEM 100.

CHEM 120

GENERAL, ORGANIC, AND BIOCHEMISTRY

Fall/Spring, 3 credit hours

GER 2

An integration of general chemistry, organic chemistry and biochemistry providing the student

with a basic understanding of chemical processes and knowledge useful in a variety of degree programs. Topics include matter/atomic structure review, chemical bonding, intermolecular forces, physical behavior of gases, solutions, chemical kinetics, chemical equilibrium, acid/base equilibrium including buffers, an overview of organic chemistry, and an overview of biochemistry. The course is particularly useful to students in health-related curricula where an understanding of life processes at the molecular level is essential. Three hours lecture per week. Prerequisites: High School Regents Chemistry (65 grade minimum), or Introduction to Chemistry (CHEM 101) and High School Algebra or Intermediate Algebra (MATH 106) or permission of instructor. Corequisite: General, Organic, and Biochemistry Laboratory (CHEM 121) the first time CHEM 120 is attempted or permission of instruction.

CHEM 121

GENERAL, ORGANIC, AND BIOCHEMISTRY LABORATORY

Fall/Spring, 1 credit hour

GER 2

The laboratory component of General, Organic, and Biochemistry (CHEM 120). The course includes experiments in measurement principles, thermodynamics, kinetics, gravimetric analysis, physical behavior of gases, spectroscopy, radiochemistry, solutions, organic chemistry separation techniques and organic chemical synthesis. Two hours laboratory per week. Prerequisites: NYS Chemistry Regents (65 grade minimum) or Introduction to Chemistry (CHEM 101) and HS algebra or Intermediate Algebra (MATH 106), or permission of instructor. Corequisite: General, Organic, and Biochemistry (CHEM 120) or after CHEM 120 has been successfully completed, or permission of instructor.

CHEM 150

COLLEGE CHEMISTRY I

Fall, 4 credit hours

This is the first semester of a two-semester college level course in chemistry. Topics include atomic structure, the periodic chart, moles, chemical reactions, stoichiometry, aqueous solutions, gas laws, gases in the atmosphere, thermochemistry, and chemical bonding theory. Three hours lecture, three hours laboratory per week. Prerequisites: NYS Chemistry Regents Exam of 65 or above or Introduction to Chemistry (CHEM 101/100) or Investigative Chemistry (CHEM 107/108), and Intermediate Algebra (MATH 106) or high school equivalent, or permission of instructor.

CHEM 155

COLLEGE CHEMISTRY II

Spring, 4 credit hours

This is the second semester of a two semester college level course in chemistry. Topics include: bonding, intermolecular forces, solutions, chemical kinetics, chemical equilibrium, acids and bases, chemical thermodynamics, free energy concepts, and nuclear chemistry. Three hours lecture, three hours laboratory per week. Prerequisites: College Chemistry I (CHEM 150) or permission of instructor.

CHEM 204

INTRODUCTION TO ORGANIC CHEMISTRY

Spring, 4 credit hours

GER 2

This is a survey course in the basic principles of

organic chemistry and biochemistry. Topics include chemical bonding, chemical thermodynamics/kinetics, nomenclature, stereochemistry, the chemical reactivity of commonly encountered organic chemical functional groups (alkanes, olefins, aromatics, alcohols, ethers, phenols, aldehydes, ketones, carboxylic acids, carboxylic acid derivatives, and amines), carbohydrates, and amino acids/proteins. The laboratory component of the course includes exercises in organic chemistry laboratory techniques, chemical synthesis, infrared and NMR spectroscopy, and qualitative organic analysis. Three hours lecture, three hours laboratory per week. Prerequisite: College Chemistry I (CHEM 150) or Introduction to Chemistry (CHEM 100/101) or permission of instructor.

CHEM 301

ORGANIC CHEMISTRY I

Fall, 4 credit hours

Organic Chemistry I is the first semester of a two semester sequence of organic chemistry which is applicable for Liberal Arts: Science and Engineering Science curricula. The lecture portion of the course will include chemical bonding, acid/base theory, thermodynamics, kinetics, organic structure, isomerism, stereochemistry, infrared spectroscopy, CMR/PMR nuclear magnetic resonance spectroscopy, mass spectroscopy, nomenclature principles, and the chemistry of several organic chemical functional groups. The laboratory portion of the course will include methods of purification/separation of organic chemicals, chemical kinetics, instrumental analytical techniques, and several organic syntheses. Three hours lecture, three hours laboratory per week. Prerequisite: College Chemistry II (CHEM 155) or permission of instructor.

CHEM 302

ORGANIC CHEMISTRY II

Spring, 4 credit hours

This course is a continuation of Organic Chemistry I. The lecture portion of the course will include oxygen containing functional groups, aromaticity, benzene and its derivatives, carbanions, nitrogen containing functional groups, heterocyclics, and nuclear magnetic resonance. The laboratory portion of the course will consist of organic syntheses and qualitative organic analysis. Three hours lecture, three hours laboratory per week. Prerequisite: Organic Chemistry I (CHEM 301) or permission of instructor.

CHEM 291-295, 391-395, OR 491-495

SPECIAL TOPICS IN CHEMISTRY

Fall/Spring, 1-4 credit hours

Special Topics in Chemistry will generally include topics of current interest or topics not covered in courses currently offered by the Department or in combinations not currently available.

CITA 101

LIBRARY/INFORMATION LITERACY

Fall/Spring, 1 credit hour

This course will focus on the organization, use, and retrieval of information, both within and outside of the library. Students will gain an understanding of the characteristics of information and be able to locate and critically evaluate it. Instruction will focus on both print and electronic information resources. Two hours lecture per week for seven weeks.

Course Descriptions: COMPUTER

CITA 103 **INTRODUCTION TO WORLD WIDE WEB** *Fall/Spring, 1 credit hour*

This course will introduce students to the World Wide Web (WWW) and Microsoft Outlook. This course will offer instruction on how to use Internet Explorer and Microsoft Outlook for searching information on the Internet, send and receive e-mail, maintain a contact list, keep a calendar, and schedule meetings and events. Two hours lecture per week for seven weeks.

CITA 104 **INTRODUCTION TO DATABASE** *Fall/Spring, 1 credit hour*

This course introduces the student to the fundamentals of database programs. Students will be exposed to the creation, maintenance and organizing of a database. The students will also create listings and reports. Two hours lecture per week for seven weeks.

CITA 105 **INTERMEDIATE DATABASE** *Fall/Spring, 1 credit hour*

This course is designed to increase the students' knowledge of database fundamentals using an industry standard database package as the instructional platform. The student will learn to do more advanced querying of the database, create and use custom forms, create and use custom reports, use the briefcase wizard, create action queries and macro writing. Two hours lecture per week for seven weeks. Prerequisite: Introduction to Database (CITA 104) or permission of instructor.

CITA 106 **INTRODUCTION TO WORD PROCESSING** *Fall/Spring, 1 credit hour*

This course is designed to help the student attain the necessary skills and knowledge needed for effective operation of word processing software and equipment. This course will introduce concepts of word processing equipment, input, output, storage and retrieval, distribution and software. Major emphasis will be put on hands-on experience. Two hours lecture per week for seven weeks.

CITA 107 **INTERMEDIATE WORD PROCESSING** *Fall/Spring, 1 credit hour*

This course is designed to help the student attain advanced skills and knowledge needed for effective operation of word processing software and equipment. Major emphasis will be put on hands-on experience in learning how to design letterheads and newsletters, understanding the merging process, and creating tables. Two hours lecture per week for seven weeks. Prerequisite: Introduction to Word Processing (CITA 106) or permission of instructor.

CITA 108 **INTRODUCTION TO SPREADSHEETS** *Fall/Spring, 1 credit hour*

This course introduces the student to the fundamentals of spreadsheet programs. Students will create spreadsheets with literal and numeric data. The numeric data will be constants and/or formulas. Printing of spreadsheets will also be covered. Creating line, bar, stacked bar and pie graphs from a spreadsheet

will also be included in the course. Two hours lecture per week for seven weeks.

CITA 109 **INTERMEDIATE SPREADSHEETS** *Fall/Spring, 1 credit hour*

This course is designed to increase the students' knowledge of spreadsheet fundamentals using an industry standard spreadsheet package as the instructional platform. The student will learn to work with lists, pivot tables, object linking and embedding, developing a complete worksheet application and macro writing. Two hours lecture per week for seven weeks. Prerequisite: Introduction to Spreadsheets (CITA 108) or permission of instructor.

CITA 110 **INTRODUCTION TO INFORMATION TECHNOLOGY** *Fall/Spring/Summer, 3 credit hours*

This course is an introduction to information technology focusing on microcomputer applications and application software. Topics will include personal computer terminology, hardware system components, disk operating systems and Microsoft Windows®. The student will learn through hands-on experience the skills necessary to use word processing, spreadsheet, database tools and introductory HTML. A student who completes CITA 110 may not receive credit for any of the following one-credit courses in a degree program: Introduction to Database (CITA 104), Introduction to Word Processing (CITA 106), Introduction to Spreadsheets (CITA 108), nor Introduction to Electronic Presentations (CITA 112). Two hours lecture, two hours laboratory per week.

CITA 111 **WEB PAGE DEVELOPMENT** *Fall/Spring, 2 credit hours*

This course will introduce students to the development process of web pages. The student will learn how to create and edit text (HTML) with a web authoring tool. They will learn how to use a draw/graphics software program to create, edit and use various types of graphic images (.GIF & .JPEG) to help maintain the "surfer's" interest. The student will learn how to setup and maintain hyperlinks to various sites and within the original document. Also, the student will learn how to create and use tables, image maps, thumbnails and animated GIFs. Two hours lecture per week. Prerequisite: Introduction to World Wide Web (CITA 103) or permission of instructor.

CITA 112 **INTRODUCTION TO ELECTRONIC PRESENTATIONS** *Fall/Spring, 1 credit hour*

This course is designed to show the student how to use desktop presentation software to prepare professional-looking presentations, combining text, charts and graphics. The students will also learn how to create typical business charts using a spreadsheet and enhancing those charts with additional software. You will experiment with animation using a drawing program, and create a presentation using various types of charts and show it to the entire class. Two hours lecture per week for seven weeks.

CITA 115 **USING OPERATING SYSTEMS** *Fall/Spring/Summer, 2 credit hours*

This course provides an overview of computer software and operating system concepts used on computer systems. Fundamentals of the user interface, Windows Operating System (OS), are studied in-depth. Topics include software, manipulating the Windows OS, using Help, launching applications in Windows OS, managing files and folders with Explorer and My Computer. Other topics covered include Control Panel, Notepad, WordPad, Paint, Calculator and Character Map, object linking and embedding, printing and fonts. The basic concepts and terminology of networking will be introduced. Two hours lecture per week.

CITA 116 **VERIZON COMPUTER APPLICATIONS** *Fall, 3 credit hours*

This course is an introductory course in basic computer orientation to hardware and implementation of software applications in Telecommunications. Students will use various software packages to create documents, spreadsheets, graphs, and presentations. The student will utilize this knowledge to solve problems and transfer information via electronic medium. Lectures, interactive learning and demonstrations will be employed. Three hours lecture per week. Prerequisite: Permission of instructor.

CITA 152 **COMPUTER LOGIC** *Fall/Spring, 3 credit hours*

This course provides a background in logical problem solving skills used in computing. Topics include problem solving techniques, number systems, programming concepts, relational and logical operators. Three hours lecture per week. Prerequisite: Lev-eled into at least into Intermediate Algebra (MATH 106) and Oral and Written Expression (ENGL 102) or permission of instructor.

CITA 163 **SURVEY OF INFORMATION TECHNOLOGY** *Fall/Spring, 3 credit hours*

An introductory survey of Information Technology (IT) and IT terminology. Emphasis is given to current and emerging technologies. Topics include: computer system components, communications and networks including the Internet, data processing and presentation methods including databases, basic concepts in programming languages, information system development, and issues of IT impacts on society, security, privacy, and ethics. Three hours lecture per week.

CITA 170 **COMPUTER CONCEPTS AND OPERATING SYSTEMS** *Fall/Spring, 3 credit hours*

This is a study of the terminology and concepts associated with computer systems hardware and software. Topics will include: system hardware components, memory organization and management, operating systems, troubleshooting fundamentals, etc. Students will construct PCs and install, configure, test and troubleshoot system software to apply the various concepts covered in the course. Two hours lecture, two

Course Descriptions: COMPUTER

hours laboratory per week.

CITA 171 OPERATING SYSTEM FUNDAMENTALS *Fall/Spring, 3 credit hours*

This is a project intensive course covering current operating systems. The projects in this course are designed to give students an overview of operating systems, and will encompass the major aspects of operating systems. This course may be used as a first step for students wishing to obtain industrial certification for current operating systems. Students who complete this course may not receive credit for either Using operating Systems (CITA 115) or Linux Operating Systems (CITA 271) courses. Three hours lecture per week in a computer classroom. Prerequisite: Computer Concepts & Operating Systems (CITA 170) or permission of instructor.

CITA 180 INTRODUCTION TO PROGRAMMING *Fall/Spring, 4 credit hours*

This course develops methodologies and techniques for program creation and implementation. Writing high-quality, internally- documented, well-structured programs utilizing appropriate data structures is emphasized. Prerequisite: Survey of Information Technology (CITA 163) or permission of instructor.

CITA 200 DATA COMMUNICATIONS AND NETWORKING *Fall/Spring, 3 credit hours*

A study of terminology, hardware and software associated with data communication systems. Areas of study will include design principles for human computer dialogue, selection criteria for communications devices, the technology behind data transmission, techniques and message protocols for line control and error processing, local area networks, networking concepts, network topologies and access control, network performance, network services and design issues. Two hours lecture, two hours laboratory per week. Prerequisite: Computer Concepts and Operating Systems (CITA 170) or permission of instructor.

CITA 202 COMPUTER USER SUPPORT CONCEPTS AND SKILLS *Fall/Spring, 3 credit hours*

People interested in becoming a computer support specialist or systems administrator must have strong problem-solving, analytical, and communication skills because troubleshooting and helping others are vital parts of the job. This course prepares the support specialist to maintain customer satisfaction by focusing on the needs of the customer, establishing credibility and trust, and by handling the most difficult customer scenarios. Emphasis is given to problem solving and troubleshooting, team dynamics, and interpersonal communication skills. It also provides a broad overview of the back-office operations of a help desk, and exposes the student to common industry tools and technologies used in providing exceptional customer support. Three hours lecture per week. Prerequisite: One computer related course or permission of instructor.

CITA 204 SYSTEMS ANALYSIS AND DESIGN *Spring, 3 credit hours*

A course designed to guide the student through the evolution of a system; an analysis of the present flow of information; and the specifications, selection and implementation of information processing systems. The scope of a system development study will transcend mere knowledge of specific systems to include a study of the total management system. Three hours lecture per week. Prerequisites: Survey of Information Technology (CITA 163), Introduction to Database (CITA 104), Introduction to Programming (CITA 180), and Database Systems with Web Applications (CITA 215), or permission of instructor.

CITA 211 DESKTOP PUBLISHING *Fall/Spring, 3 credit hours*

Students will build professional, high quality desktop publishing documents using a page layout program (Microsoft Publisher). Discussion will center on how the form, content, graphics, and design are tied together with the text for effective communication. Students will learn how to construct a publication from front to back and will create various hard copy designs. Applications will focus on preparing brochures, newsletters, advertisements, and extended documents. Two hours lecture, two hours laboratory per week. Prerequisite: Introduction to Word Processing (CITA 106) or permission of instructor.

CITA 215 DATABASE SYSTEMS WITH WEB APPLICATIONS *Spring, 3 credit hours*

Database management systems are studied in the context of an SQL-based product. Topics include: logical organization versus physical organization; relational, network and hierarchical models; normalization; and the creation of a web-based user-interface to manipulate tables. A term project is assigned. Two hours lecture, two hours laboratory per week. Prerequisite: Introduction to Programming (CITA 180) or permission of instructor.

CITA 220 DATA COMMUNICATIONS AND NETWORK TECHNOLOGY *Offered as needed, 3 credit hours*

A study of terminology, hardware and software associated with data communications and network technology. Areas of study will include design principles for human-computer dialogue, selection criteria for communications devices, the technology of data transmission, techniques and message protocols for line control and error processing, local area networks, networking concepts, network topologies and access control, network performance, network services and design issues, and network media and access methods. Design, configuration, operation and maintenance questions are explored. Topics will include end-user perspective, network operating systems, cabling, hardware protocols, software and applications, design, and administration. This course should be taken concurrently with Data Communications and Network Technology Lab (CITA 221). Three hours of lecture per week. Prerequisites: Operating System Fundamentals (CITA 171), College Algebra (MATH

121), or permission of instructor.

CITA 221 DATA COMMUNICATIONS AND NETWORK TECHNOLOGY LAB *Offered as needed, 1 credit hour*

This laboratory course is to accompany the lectures of CITA 220 Data Communications and Network Technology course. Students will obtain hands-on experience on data communications and network technology throughout this course. Two hours laboratory per week. Prerequisites: Operating system Fundamentals (CITA 171), College Algebra (MATH 121) or permission of instructor.

CITA 230 NETWORK TECHNOLOGY *Fall/Spring, 3 credit hours*

Survey and evaluation of network media, access methods, and topologies are studied. Design, configuration, operation and maintenance questions are explored. Topics will include end user perspective, network operating systems, cabling, hardware protocols, software, design, and administration. Two hours lecture, two hours laboratory per week. Prerequisite: Data Communications and Networking (CITA 200) or permission of instructor.

CITA 240 COMPUTER SYSTEMS INTERNSHIP *Offered as needed, 3 credit hours*

This course is intended as an elective for Computer Information Systems majors with instructor's permission. The course is designed to provide on-the-job training for systems analysts in a computer center. The student will be exposed to all phases of systems work from preliminary study through implementation and review. One day a week and scheduled conferences with instructor.

CITA 250 INFORMATION SECURITY *Fall/Spring, 3 credit hours*

An introduction to various technical and administrative aspects of Information Security and Assurance. Students will be exposed to the spectrum of Information Security activities, methods, methodologies, and procedures. Coverage will include inspection and protection of information assets, detection of and reaction to threats to information assets, and examination of pre- and post-incident procedures, technical and managerial responses and an overview of Information Security planning and staffing functions. Three hours lecture per week. Prerequisite: Data Communications and Network Technology (CITA 220) or permission of instructor.

CITA 260 INTRODUCTION TO WIRELESS TECHNOLOGY *Spring, 3 credit hours*

This course introduces various aspects of wireless technology including wireless networks, authentication, protocols, security, installation considerations, and standards. Projects to determine signal strengths from different antenna types and locations are assigned. Three hours lecture per week. Prerequisite/corequisite: Data Communications and Networking (CITA 200) or permission of instructor.

Course Descriptions: COMPUTER

CITA/MINS 300 **MANAGEMENT INFORMATION SYSTEMS** *Fall/Spring, 3 credit hours*

Students learn the concepts underlying the design, implementation, control, evaluation, and strategic use of modern, computer-based information systems for business data processing, office automation, information reporting, decision-making, and electronic commerce. The major emphasis of the course will be on the managerial and strategic aspects of information technology. Three hours lecture per week. Prerequisites: Introduction to Business (BSAD 100) and 45 semester hours completed or permission of instructor.

CITA/MINS 305 **CUSTOMER RELATIONSHIP** **MANAGEMENT** *Fall/Spring, 3 credit hours*

This course provides information systems tools for building a customer-focused organization based on customer data and information. The course focuses on using current data to enhance relationships with customers, gathering data for future marketing endeavors and providing strategic guidance to the organization. The course provides insights into customer life-cycle management, customer lifetime value and measuring customer profitability. Three hours lecture per week. Prerequisites/corequisites: Management Information Systems (CITA/MINS 300) or permission of instructor.

CITA 310 **WEB SERVER ADMINISTRATION** *Fall, 3 credit hours*

A comprehensive survey of all aspects of web server administration. Students will gain hands-on experience by actually installing and administering their own web servers in a lab environment. Topics include: server installation and configuration, site planning, supporting dynamic content with CGI's and ASP's server maintenance and site security. Two hours lecture, two hours laboratory per week. Prerequisite: Data Communications and Network Technology (CITA 220) or permission of instructor.

CITA/MINS 315 **DECISION SUPPORT SYSTEMS** *Fall/Spring, 3 credit hours*

This course enables the student to turn raw data into information to help an organization's managers make decisions. Students will develop decision making analytical models to provide organizational leaders with potential outcomes and their effects. Students will study the network's role in distributed systems, distributed systems development tools, and distributed systems issues. Students will apply data-mining techniques supporting knowledge-management decisions. Three hours lecture per week. Prerequisites/corequisites: Management Information Systems (CITA/MINS 300) or permission of instructor.

CITA/MINS 320 **INTRODUCTION TO DATA MINING** *Spring, 3 credit hours*

A systematic introduction to the basic principles, applications, techniques and models of data mining including classification, estimation, prediction, affinity grouping, clustering, description and profiling. The emphasis is on various data mining problems and their

solutions. Students will also be exposed to a sample of data mining applications. Topics include decision trees, artificial neural networks, nearest neighbor approaches, market basket analysis, and association rules. Three hours lecture per week. Prerequisites/corequisites: Introduction to Database (CITA 104) or Database Systems (CITA 215) and Statistics (MATH 141) or permission of instructor.

CITA 330 **EMERGING INFORMATION TECHNOLOGY** **APPLICATIONS** *Spring, 3 credit hours*

An advanced study of emerging information technology applications. This course covers web application development with XML, multimedia technologies including graphics, audio, animation, video, presentations, desktop publishing, web publishing, and input technologies including speech, and writing recognitions. The course will also include additional topics on most current state-of-the-art IT applications. Two hours lecture, two hours laboratory per week. Prerequisite: junior level status or permission of instructor.

CITA 342 **VISUAL PROGRAMMING AND** **DEVELOPMENT TOOLS** *Fall, 3 credit hours*

An introduction to the development of computer applications using rapid development tools such as Visual Basic or Visual C++. Emphasis will be on designing and managing graphical user interfaces, procedures, file management, debugging and testing. Two hours lecture and two hours lab per week. Prerequisite: Introduction to Programming (CITA 180) or permission of instructor.

CITA/JUST 365 **DIGITAL FORENSIC ANALYSIS** *Fall/Spring/Summer, 3 credit hours*

This course is designed to prepare the student to complete forensic analysis of digital media and to understand the process and technical challenges of internet investigations. The course looks specifically at how to obtain evidence from digital media, how to process network messages and logs while preserving the evidentiary chain, and the legal aspects of the search and seizure of digital media and related equipment and information. Two hours lecture and two hours laboratory per week. Prerequisites: Operating System Fundamentals (CITA 171) or permission of instructor.

CITA 400 **QUANTITATIVE APPROACHES TO** **MANAGEMENT** *Spring, 3 credit hours*

This is the study of the decision-making process and how quantitative methods are used to find solutions to business problems. Computer software tools will be used to analyze and process data. Opportunities, problems and decisions that confront managers are analyzed and solutions are developed. Topics covered include, but are not limited to: cost-volume-profit analysis, forecasting, decision theory, linear programming, probability concepts and applications, inventory control, queuing theory, and game theory. Two hours lecture, two hours laboratory per week. Prerequisite: Statistics (Math 141) or permission of

department.

CITA 420 **PROGRAMMING FOR THE WEB** *Fall, 3 credit hours*

This is a survey of programming languages and techniques for web development. Topics include CGI's, client-side programming with JavaScript, dynamic content using Java and ActiveX, server-side programming using Active Server Pages and VB Script, creating dynamic, database driven content, and developing web based client/server database applications. Two hours lecture, two hours laboratory per week. Prerequisites: Web Server Administration (CITA 310) and Emerging Information Technology Applications (CITA 330), or permission of instructor.

CITA/MINS 425 **ENTERPRISE RESOURCE PLANNING** *Fall/Spring, 3 credit hours*

This course provides information systems tools to ensure a comprehensive resource planning system for all functions of businesses. The course will discuss the development and employment of enterprise resource planning for marketing, accounting, supply chain management, and human resources. Content will focus on practical applications of enterprise resource planning to ensure businesses get the greatest returns on information systems investment. Three hours lecture per week. Prerequisites/corequisites: Management Information Systems (CITA/MINS 300) and junior level status or permission of instructor.

CITA/MINS 430 **DATA AND KNOWLEDGE MANAGEMENT** *Fall/Spring, 3 credit hours*

This course focuses on the development of a knowledge-management system using an organization's tacit and explicit knowledge to execute its strategy. The course explores practices entailed in developing a knowledge infrastructure, managing the interaction of people and technology, valuing knowledge assets, leveraging teams, and transferring knowledge across organizations. Three lecture hours per week. Prerequisites/corequisites: Management Information Systems (CITA/MINS 300) and junior level status or permission of instructor.

CITA 440 **NETWORK MANAGEMENT** *Spring, 3 credit hours*

An advanced study of network management concepts, architectures, protocols, models, tools, systems, and applications. The course concentrates on the implementation of the Simple Network Management Protocol (SNMP). Students are also introduced to the use of the Desktop Management Interface (DMI) standard and Web-based Management. Three hours lecture per week. Prerequisite/corequisite: Network Technology (CITA 230) or permission of instructor.

CITA 460 **INFORMATION TECHNOLOGY AND** **NETWORKED ECONOMY** *Fall, 3 credit hours*

This course will examine the fundamental concepts and components of Information Technology from both managerial and professional end-user perspective. The course will also explore the foundations of

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information systems to the demands of electronic commerce, connectivity, and networked economy. Three hours lecture per week. Prerequisite: senior level status in a four-year program or permission of instructor.

CITA 479 INFORMATION TECHNOLOGY INTERNSHIP ORIENTATION

Fall/Spring, 1 credit hour

This course is designed as the precursor to the Senior Culminating Experience for seniors in the Information Technology program. Seniors will meet on a weekly basis with faculty to discuss resume preparation, job interviewing, locating and establishing internships, and internship requirements. This course is a prerequisite to Internship in Information Technology (CITA 480). One hour lecture per week. Prerequisites/corequisites: all upper-level Information Technology core courses.

CITA 480 INTERNSHIP IN INFORMATION TECHNOLOGY

Fall/Spring, 6 or 12 credit hours

This is supervised field work in a selected business, industry, government or educational setting. Students carry out a planned program of educational experiences under direct supervision of an owner, manager or supervisor of information technology in an organization. Each intern will be supervised by a member of the faculty on a regular basis. Written and oral reports of work experience activities will be required. Evaluation will be based on the quality of experiences gained from the internship. Approximately 600 hours of supervised activity. Prerequisites: Information Technology Internship Orientation (CITA 479) and senior level status in the Information Technology program or permission of instructor.

CITA 481 SENIOR PROJECT IN INFORMATION TECHNOLOGY

Fall/Spring, 6 credit hours

The course requires extensive project development work to integrate the specialized skills and knowledge presented throughout other courses in the Information Technology curriculum. Under the guidance of a faculty mentor, the student will prepare a project proposal, conduct literature review and project implementation, submit a project report, and make an oral presentation. At least 225 project activity hours needs to be fulfilled. Corequisite: Information Technology and Networked Economy (CITA 460). Prerequisites: Information Technology Internship Orientation (CITA 479), and senior level status in Information Technology program, or permission of the program director.

CITA 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN COMPUTING

Fall/Spring, 1-4 credit hours

Special Topics in computers will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available. Prerequisite: permission of the instructor.

CONS 101 ELEMENTARY SURVEYING

Fall, 4 credit hours

Course consists of both lecture and laboratory periods. Lectures include the developmental history of the surveying profession, along with the underlying principles of basic theory and practice. Realistic exercises involving linear and angular measurements, leveling, field-book recording, construction layout, and traversing are performed in the outside laboratory. Computation of errors, adjustments for instrument misalignment and weather are included in the laboratory exercises. Conversion of measurements and use of the Metric (S.I.) system is also included. Students have ample opportunity for hands-on training with the extensive variety of equipment utilized in the course. Field parties are of limited size and offer "one-on-one" instruction opportunity. Three hours lecture, three hours laboratory per week. Prerequisites: Intermediate Algebra (MATH 106) or concurrent enrollment in College Algebra (MATH 121) or Calculus (MATH 122 or 161) plus a beginning physics course or permission of instructor.

CONS 111 COMMERCIAL STRUCTURES

Spring, 3 credit hours

The study of construction materials, practices, equipment, and terminology used in the commercial construction field. Lectures and laboratory periods develop theory and practice in excavation, foundation form work, use of reinforcing steel in concrete, erection of steel frame buildings, commercial wall and roof systems, interior and exterior wall finishes, and commercial building materials. Field trips to be arranged when practical. Two hours lecture, three hours laboratory per week.

CONS 112 WOOD STRUCTURES

Fall, 3 credit hours

The study of construction materials, practices, equipment and terminology used in buildings requiring wood framing. Lectures and laboratory periods develop theory and practice in layout and assembly of wood framing of floors, walls, roofs and trusses, and siding materials. Construction of a 2-stall garage and/or small storage shed will serve as an application of wood framing and exterior finish fundamentals. Students will perform an individual research project with a written report. One or more field trips will be arranged.

CONS 115 INTRODUCTION TO COMPUTER DRAWING

Fall/Spring, 1 credit hour

An introductory course in the use of Auto Cad. Topics included for study are file management, object generating and modification, use of layers, dimensioning, and plotting to scale. All topics are incorporated into project assignments which will be printed/plotted. Two hours lab per week for 15 weeks.

CONS 122 HYDRAULICS

Spring, 4 credit hours

The basics of fluid mechanics and their application to Civil Engineering Technology are considered.

Fundamental concepts presented are fluid properties, specific weight, density, specific gravity, absolute and kinematic viscosity. Major topic areas covered are: fluids at rest including pressure diagrams and their application to dam design, steady flow of liquids in closed and open conduits, losses in pipe flow, flow measuring devices in open and closed conduits. Three hours lecture, two hours laboratory per week. Prerequisites: College Algebra (MATH 121), College Physics I (PHYS 121) or permission of instructor.

CONS 132 CONSTRUCTION DRAFTING

Spring, 3 credit hours

An introduction to the fundamental principles of engineering and architectural drafting and to the basic idea that all people involved in engineering and/or construction will communicate with drawings of some nature. It is intended that the student will have exposure to orthographic projection, perspective and isometric views, descriptive geometry, good drafting practices and engineering lettering. It is also intended to expose the student to a variety of construction prints so as to create the ability to deal with all varieties of drawings commonly emanating from architectural/engineering firms and found on construction job sites. In conjunction with manual drawing, the student applies CAD (computer aided drafting) throughout the course. One hour lecture, four hours laboratory per week.

CONS 151 BUILDING TRADES—BLUEPRINT READING AND DRAFTING

Fall, 2 credit hours

Instruction includes understanding the fundamental concepts in freehand sketching and instrument drawing needed for communication in the construction industry. Orthographic projection, pictorials and perspective drawing techniques will be introduced. A variety of drawings will be studied in order to become familiar with information contained on them and how they are interpreted. CERTIFICATE/AAS ELECTIVE CREDIT ONLY. One hour lecture, two hours laboratory per week.

CONS 152 BUILDING TRADES—DRAFTING AND DESIGN

Spring, 2 credit hours

This course includes the use and interpretation and drawing of architectural plans, including foundation and floor plans, wall sections, elevations, location of service equipment and schedules. Emphasis on good design features i.e. traffic patterns, room design, area planning, kitchen and bathroom layout. Estimating building materials and costs are explored. A complete set of working drawings of a contemporary or traditional one family home is designed and drawn by each student. CERTIFICATE/AAS ELECTIVE CREDIT ONLY. One hour lecture, two hours laboratory per week. Prerequisite: Building Trades—Blueprint Reading and Drafting (CONS 151) or permission of instructor.

CONS 161 LIGHT CONSTRUCTION I

Fall, 6 credit hours

This course of study consists of instruction in the

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use of building construction processes, practices and products as it relates to modern theory and techniques used in the residential and light construction industry today. Included is the use of hand and power tools, power equipment, safety procedures, site preparation, building layout, footings, foundations, erection of concrete forms, placing concrete in forms, use of masonry tools, laying concrete block and brick, wood framing techniques and characteristics of building materials. **CERTIFICATE/AAS ELECTIVE CREDIT ONLY.** Three hours of theory interpretation and nine hours of hands-on laboratory experience per week.

CONS 162 **LIGHT CONSTRUCTION II** *Spring, 7 credit hours*

The course of instruction consists of the continued study of building construction theory, processes, practices and products introduced in Light Construction I (CONS 161). The building of a complete and modern home in the laboratory leads the hands-on-learning experience in this building construction program. Included is experience with: wall, ceiling and roof framing, design of truss rafters, roofing material, stairs, exterior and interior finishing, drywall, tile, insulating materials, kitchen and bathroom fixtures, window and door installation. Also many new and existing products and processes are investigated. **CERTIFICATE/AAS ELECTIVE CREDIT ONLY.** Three hours lecture theory, twelve hours of hands-on laboratory experience per week. Prerequisite: Light Construction I (CONS 161) or permission of instructor.

CONS 172 **TECHNICAL STATICS** *Spring, 3 credit hours*

Provides application of Newton's First and Third Laws of motion in the force analysis of statically determinate structures such as pinned connections, trusses, beams, frames, and cables. The determination of centroids and moment of inertia is also covered. The course requires extensive application of geometry, trigonometry and algebra. The course provides fundamentals that are used in structural mechanics/strength of materials. Two hours lecture, two hours recitation per week. Prerequisites: College Algebra (MATH 121), College Physics I (PHYS 121), or permission of instructor.

CONS 203 **ADVANCED SURVEYING** *Fall, 4 credit hours*

This course emphasizes fundamentals of field and office procedures used in the construction industry. Major topics covered are: mapping procedures, topographic survey methods, area determinations by coordinates, determination of volumes for earthworks, horizontal and vertical control necessary for mapping and building layout, horizontal (circular) curves, vertical (parabolic) curves, and principles of boundary surveying. The student uses modern surveying equipment in field sessions, including total stations, automatic levels and lasers, geographic positioning satellite receivers and integrated mapping and surveying software for data analysis and map compilation. Two hours lecture, six hours laboratory per week (one field section and one CAD drafting section). Prerequisite: Elementary Surveying (CONS 101) or permission of instructor.

CONS 204 **REINFORCED CONCRETE DESIGN** *Spring, 4 credit hours*

The fundamentals of reinforced concrete design are taught using the strength design method. Students learn to design slabs, beams, girders, columns and footings to current ACI code specifications. Laboratory experience is provided in concrete mix design, testing of aggregate and concrete mixes. The laboratory also includes an integrated building design project. Three hours lecture, three hours laboratory per week. Prerequisite: Structural Mechanics Lecture (CONS 263) or permission of instructor. AAS students only.

CONS 214 **SOIL MECHANICS** *Spring, 4 credit hours*

A study of soil types and properties, the significance of soil tests, the methods of compaction, consolidation and settlements, soil stabilization and the problems related to the proper design of soil-supported foundations for buildings and structures. Use of laboratory for testing soil samples supplements the classroom instruction and provides experience in the actual testing of soil as performed in industry. The environmental aspects of geotechnology are introduced. A writing intensive course. Three hours lecture, two hours laboratory per week. Prerequisite: Structural Mechanics Lecture (CONS 263) or permission of instructor. AAS students only.

CONS 220 **ENGINEERING MATERIALS** *Spring, 3 credit hours*

A study of the wide spectrum of materials used in manufacturing of discrete parts and machines. Material structure, characteristics, mechanical properties and applications will be stressed for ferrous and non-ferrous metals, plastics, and composites. Two hours lecture, three hours laboratory per week. Prerequisites: College Algebra (MATH 121) and College Physics I (PHYS 121) or permission of instructor.

CONS 222 **CONSTRUCTION ESTIMATING** *Fall, 2 credit hours*

An introduction to estimating the costs of construction. Includes quantity take-off from construction plans, unit pricing of labor, material, and equipment, and extensions based on unit prices derived from industry accepted resources such as RS Means and Timberline. The CSI Master format is introduced as a method of approach and organization. One hour lecture, two hours laboratory per week. Prerequisites: Computer Applications for Technicians (SOET 110), Commercial Structures (CONS 111), and Intermediate Algebra (MATH 106) or permission of instructor.

CONS 224 **STRUCTURAL STEEL DESIGN** *Spring, 4 credit hours*

Theory and design criteria for structural steel buildings is presented. The design methods conform to the AISC specifications as outlined in the "Manual of Steel Construction Load and Resistance Factor Design (LRFD)." Subject areas include truss analysis, tension members, beams, compression members and bolted connections. Three hours lecture, two hours laboratory per week. Prerequisite: Structural Mechan-

ics Lecture (CONS 263) or permission of instructor. AAS students only.

CONS 226 **BRIDGE BUILDING** *Spring, 1 credit hour*

Students are challenged to an intercollegiate bridge building competition that includes design, fabrication, and construction. Participating students gain practical experience in structural design, fabrication processes, construction planning, organization, and teamwork. Students will essentially design and construct a 21-foot long steel bridge that is both light and strong, and capable of supporting 2,500 pounds. The class will use their bridge design to represent SUNY Canton's entry in the regional competition. Students meet for 45 hours per semester with classes scheduled according to the demands of the competition. Prerequisites: enrollment in a Canino School of Engineering Technology curriculum and permission of the instructor.

CONS 233 **STRUCTURAL DRAFTING** *Fall, 3 credit hours*

An acquaintance with the properties, dimensions and characteristics of present-day shapes and forms is achieved by making detail and erection drawings reflecting present-day fabrication and erection procedures for structural steel. Mill practices, tolerances and billings are considered. Proper drafting techniques are observed. Selection and detailing of beams, girders, columns and connections is carried out. Drawing prints are made for checking purposes from the pencil drawings. The AISC handbook is used extensively as a reference. One hour lecture, six hours laboratory per week. Prerequisite: Construction Drafting (CONS 132) or permission of instructor.

CONS 236 **STRUCTURAL ANALYSIS I** *Spring, 3 credit hours*

This course covers analysis of statically determinate beams and trusses using classical methods based on translational and rotational equilibrium. Structures considered are simply supported beams, trusses, arches and cables. This course includes computation of reactions at supports and axial forces, shears and bending moments in members. The use of influence lines to determine maximum forces in members from moving loads is taught. Students are introduced to approximate methods for the analysis of rigid frames. Computational and graphical techniques are both taught. Three hours lecture per week. Prerequisites: Technical Statics (CONS 172) or permission of instructor.

CONS 253 **CONCRETE TECHNOLOGY** *Fall, 3 credit hours*

The course is designed to provide an in-depth understanding in all steps required to design, produce, transport, place and cure quality concrete. The laboratory is used for the testing of the aggregates and concrete specimens in accordance with ASTM standards and the ACI code, and form design is studied. Two hours lecture, three hours laboratory per week.

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CONS 263 **STRUCTURAL MECHANICS LECTURE** *Fall, 4 credit hours*

The basic elements of statics and the propositions of equilibrium comprise the main thrust of the course. The theory of stress/strain is investigated. The basic theories and practices used in designing structural and mechanical members are studied and put to use. The course is designed to complement and supplement the topics in Structural Steel, Reinforced Concrete Design, and Machine Design. Four hours lecture per week. Prerequisites: Basic Calculus (MATH 122), College Physics II (PHYS 122) or permission of instructor.

CONS 272 **STRENGTH OF MATERIALS FOR TECHNICIANS** *Fall, 3 credit hours*

The concepts of stress and strain are introduced and, in combination with statics principles, are used in the analysis of structural elements. Material properties such as ultimate strength, yield strength, elastic modulus, shear strength, torsional strength, and compressive strength are investigated using physical testing. The process of selecting structural elements such as pins, bolts, tension members, compression members, beams and shafts based on strength and factor of safety is presented and practiced. Two hours lecture, two hours recitation per week. Prerequisites: Technical Statics (CONS 172), Basic Calculus (MATH 122) or Calculus I (MATH 161) or permission of instructor.

CONS 273 **STRUCTURAL MECHANICS LABORATORY** *Fall, 1 credit hour*

To provide a forum for calculation and reinforcement of the lecture course. To further reinforce the lecture course by producing hands-on experience in testing procedures and the demonstrating of the various theories presented. Three hours laboratory per week. Prerequisites: Basic Calculus (MATH 122), College Physics II (PHYS 122); Corequisite: Structural Mechanics Lecture (CONS 263); or permission of instructor.

CONS 274 **CONSTRUCTION MANAGEMENT** *Spring, 3 credit hours*

Construction management fundamentals and their applications to the conduct of a construction business. The basics of estimating, scheduling methods and expediting field operation, along with construction contracts are studied. Three hours lecture per week.

CONS 284 **BUILDING, PLUMBING AND MECHANICAL SYSTEMS** *Spring, 3 credit hours*

This course emphasizes some of the environmental elements that are associated with modern society and relate to the construction industry. Such areas as water systems, storm and sanitary drainage, treatment of sewage, domestic plumbing systems, indoor environmental comfort, heat loss and heat gain and principal methods of cooling and heating are considered. Electrical systems, lighting design, and security, fire and smoke detection systems are introduced. The course is set up to encourage student participation in

class discussions. Three hours lecture per week.

CONS 285 **ENGINEERING GEOLOGY** *Spring, 4 credit hours*

This course introduces engineers to earth processes and phenomena that impact the design, construction, and performance of engineered structures. Students learn to identify common earth materials, study the mechanical properties of rocks, and learn how earth materials respond to stress and strain resulting from natural forces and engineered structures. The impact of weather, erosion, landforms, structural deformation, earthquakes, and coastal processes on engineered structures are studied. The natural stability of slopes and mass movement hazards that impact the design and construction of structures are discussed. Additional topics include, but are not limited to: the development and composition of earth, geologic time, geologic mapping, an introduction to soil mechanics, and an introduction to surface water and groundwater principles. Laboratory exercises reinforce lecture material; and provide students with skills required by field engineers. Three hours of lecture, two hours of laboratory per week. Prerequisites: College Algebra (MATH 121) or permission of instructor.

CONS 294 **SOIL INVESTIGATION** *Spring, 3 credit hours*

The basic properties of soil that affect construction activities are presented. Subject areas include physical condition of the soil, soil phase conditions, basic soil tests, soil classification systems, soil and water relationships, soil strength concepts, and settlement and compressibility. The laboratory work consists of standard test procedures including moisture content, specific gravity, sieve analysis, Atterberg Limits tests, compaction tests, percolation tests and in-place density tests. Two hours lecture, three hours laboratory per week. Prerequisite: completion of Intermediate Algebra (MATH 106) or permission of instructor.

CONS 304 **REINFORCED CONCRETE DESIGN** *Spring, 4 credit hours*

In this course, the fundamentals of cast-in-place reinforced concrete design by the strength design method are introduced. Students design slabs, beams, girders, columns and footings in accordance with current version of American Concrete Institute Code 318. Computations are done by manual methods and spreadsheets. Students are introduced to design software. In the lab, students work through the complete design of a small multi-story commercial building. Three hours lecture, three hours laboratory per week. Prerequisites: Structural Analysis II (CONS 336) or permission of instructor.

CONS 305 **BUILDING SYSTEMS TECHNOLOGY** *Spring, 3 credit hours*

Construction materials, practices, equipment, and terminology will be studied in this course. Proper techniques in concrete work, wood and metal framing, roof systems, and site work will be included. Requirements for safe, high-quality construction and rehabilitation projects, and inspection of completed facilities will be covered. Buildings will be examined for compliance to

the New York State Energy Conservation Construction Code. Three hours lecture per week. Prerequisite: Basic Calculus (MATH 122), College Physics II (PHYS 122), or permission of instructor.

CONS 314 **SOIL MECHANICS** *Spring, 3 credit hours*

The course covers advanced topics in soil mechanics that build upon knowledge of soil types, soil properties, and basic soil property laboratory tests. The methods of compaction, consolidation, and settlement of soil are discussed. Students learn about soil and slope stabilization techniques and design. Soil-supported foundations for buildings and structures are discussed, which include different foundation types, design methods and considerations, and installation criteria and methods. Students learn about lateral earth pressures and design of retaining structures. Property methods and safety precautions for excavations are also covered. The laboratory component of the course explores advanced soil testing methods and analytical design problems related to lecture topics. This is a writing intensive course. Two hours lecture, two hours laboratory per week. Prerequisites: Calculus I (MATH 161), Civil Engineering Materials (CONS 380), Hydrology and Hydrogeology (CONS 385), Hydraulics (CONS 122), or permission of instructor.

CONS 324 **STRUCTURAL STEEL DESIGN** *Fall, 3 credit hours*

An introduction to the theory, analysis and design of the elements that comprise structural steel buildings. Instruction follows the specifications and selection techniques provided in the American Institute of Steel Construction (AISC) Manual of Steel Construction. Subject areas include determination of controlling load combinations, analysis and selection of tension members, analysis and selection of flexural members, analysis and selection of compression members, fastener strength and connection design and combined bending and axial stresses (beam-columns). Two hours lecture, two hours recitation per week. Prerequisites: Engineering Materials (CONS 220), Structural Analysis I (CONS 236), Strength of Materials for Technicians (CONS 272), Civil Engineering Materials (CONS 280), or permission of instructor.

CONS 336 **STRUCTURAL ANALYSIS II** *fall, 3 credit hours*

This course covers the introduction to the analysis of statically indeterminate beams and rigid frames. Methods taught include slope deflection, moment areas, three moment equation, and moment distribution. The development of influence lines is introduced. Most work is done by manual calculation, graphical methods and spreadsheets; however students are introduced to computer software for analysis of statically indeterminate beams. Three hours lecture per week. Prerequisites: Structural Analysis I (CONS 236), Strength of Materials for Technicians (CONS 272), Calculus II (MATH 162), or permission of instructor.

CONS 338 **ADVANCED MECHANICS OF MATERIALS** *Spring, 3 credit hours*

This course includes analysis of statically indeter-

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minate structures and deflections using the principle of virtual work. Special topics in stress analysis such as internal loads due to temperature, torsion, unsymmetrical bending circumferential stresses, buckling and beams on an elastic foundation are included. The finite element method is introduced. Three hours lecture per week. Prerequisites: Structural analysis II (CONS 336) or permission of instructor.

CONS 350

INTRODUCTION TO GEOGRAPHIC INFORMATION SYSTEMS

Spring, 3 credit hours

The course introduces students to GIS terminology, the concept of relational databases, spatial data models, topology, raster data and vector data. Data entry methods including quality control and metadata are discussed. The student is introduced to spatial analysis applications including terrain analysis, data manipulation and visualization. Students apply knowledge in the laboratory using GIS software. Prerequisites: Basic Calculus (MATH 122) (or equivalent), Computer Applications for Technicians (SOET 110) or good working knowledge of spreadsheet applications.

CONS 366

STRUCTURAL STEEL DETAILING

Fall, 3 credit hours

An acquaintance with the properties, dimensions, and characteristics of present day shapes and forms is achieved by making detail and erection drawings reflecting present day fabrication and erection procedures for structural steel. Mill practices, tolerances, and billings are considered. Proper drafting techniques are observed. Selection and detailing of beams, girders, columns, and connections is carried out. Drawing prints of columns and connections is carried out. Drawing prints are made for checking purposes from the pencil drawings. The AISC handbook is used extensively as a reference. One hour lecture, four hours laboratory per week. Prerequisites: Structural Steel Design (CONS 324), Computer Drafting (MECH 111), or permission of instructor.

CONS 368

BUILDING ELECTRICAL AND MECHANICAL SYSTEMS

Offered as needed, 3 credit hours

An introduction to the major components that comprise the electrical and mechanical (HVAC) systems in a commercial building. Students study and interpret construction plans associated with these systems. Water supply, waste, drain and vent calculations are performed. Students are required to perform heat and energy calculations. Issues that impact building environmental health and indoor air quality are presented. Alternative energy approaches to heating, cooling and providing power to buildings are introduced. Three hours lecture per week. Prerequisites: College Algebra (MATH 121) or permission of instructor.

CONS 370

TIMBER DESIGN

Fall, 3 credit hours

The dimensional features, structural properties and behavior under load of wooden structural members are presented. Students learn standard methods for the

analysis and design of timber-framed structural elements including beams, joists, rafters, posts (columns), braces, gussets and fasteners. Load and Resistance Factor Design and Allowable Strength Design are employed. Use and selection of engineered lumber products such as glu-lams and laminated veneer lumber is included. Two hours lecture, four hours recitation per week. Prerequisites: Strength of Materials for Technicians (CONS 272), Structural Analysis I (CONS 236), or permission of instructor.

CONS 372

HIGHWAYS AND TRANSPORTATION

Spring, 3 credit hours

This course covers the design of horizontal and vertical highway alignments in accordance with American Association of State Highway and Transportation Officials (AASHTO) requirements from survey data, topographic maps and traffic data. Analysis of alternate plans using benefit cost ratios based on road user costs and first costs are included. Setting of traffic light timing for optimum traffic flow and design of parking is introduced. Three hours lecture per week. Prerequisites: Advanced Surveying (CONS 203), Soil Mechanics (CONS 314), Civil Engineering Materials (CONS 380), or permission of instructor.

CONS 375

STRUCTURAL ENGINEERING DESIGN

Spring, 3 credit hours

This course is an introduction to the design of structural steel, reinforced concrete, wood and masonry. This course is taught on the basis of statically determinate structures. Students are introduced to basic concepts of the design of these different materials and apply this knowledge by designing simple structural members. Three hours lecture per week. Prerequisites: Structural Analysis I (CONS 236), Engineering Materials (CONS 220), Civil Engineering Materials (CONS 380), or permission of instructor.

CONS 380

CIVIL ENGINEERING MATERIALS

Fall, 2 credit hours

Students learn the important properties, common applications and methods for properly selecting the materials typically used in the constructed environment. The laboratory develops awareness with and expertise in conducting standardized field and laboratory testing on common civil engineering materials. The materials studied include aggregates, Portland cement concrete, masonry and asphalt. One hour lecture, three hours laboratory per week. Prerequisites: College Algebra (MATH 121), Engineering Materials (CONS 220), or permission of instructor.

CONS 385

HYDROLOGY AND HYDROGEOLOGY

Fall, 4 credit hours

This course includes the study of surface and groundwater systems, with an emphasis on civil and environmental engineering related topics. Surface water topics include: principles of hydrology, hydrologic cycle, surface water environments, surface water flow, mass transport, flood hazard analysis, and drainage basins. Specific groundwater topics include: principles of hydrogeology, aquifers, aquitards, groundwater flow regimes and modeling, well construction and testing, porosity and permeability of earth materials, and the

impact of geology on groundwater occurrence. Instruction also includes common management practices for drainage basins and groundwater. Laboratory and field exercise are used to introduce students to technologies and analytical methods used by industry to understand surface and groundwater systems. Three hours lecture, two hours laboratory per week. Prerequisites: Engineering Geology (CONS 285), Calculus I (MATH 161), or permission of the instructor.

CONS 386

WATER QUALITY

Fall, 4 credit hours

Water is one of Earth's most valuable resources. The quality of water is essential to human health, the environment, and industrial/engineering use. This course provides students with the knowledge to determine the quality of water and how it is impacted by contaminants. Course content expands upon concepts of basic chemistry to study areas of aqueous chemistry that relate to water quality analysis. Specific topics include the physical, chemical, and biological characteristics of water and the significance and interpretations of water quality properties. The fate of contaminants in natural and engineered environments are studied. Environmental and engineered systems are modeled in order to study contaminant fate and reaction kinetics. Laboratory sessions use standard water quality testing practices that are currently used in industry. Three hours lecture, two hours laboratory per week. Prerequisites: Calculus II (MATH 162), College Chemistry I (CHEM 150), or permission of the instructor.

CONS 387

WATER AND WASTEWATER TREATMENT TECHNOLOGIES

Spring, 3 credit hours

The treatment of water is necessary to achieve the required quality necessary for a desired end-use. End-use may include, but is not limited to, drinking water, medical use, and industrial use. The treatment of wastewater streams is necessary to achieve an effluent stream suitable for disposal or possible additional processing for reuse. This course explores different chemical and physical methods of treatment for water and wastewater streams. Course content expands upon concepts learned in basic chemistry and water quality courses. Specific topics include the physical, chemical, and biological treatment processes of water and wastewater streams. Students learn design concepts for water and wastewater treatment plants. There is also a discussion of water quality standards and regulations. Laboratory sessions demonstrate standard water and wastewater treatment practices that are currently used in industry. Two hours lecture, two hours laboratory per week. Prerequisites: Water Quality (CONS 386) or permission of instructor.

CONS 388

ENVIRONMENTAL LAW

Spring, 2 credit hours

This course introduces students to the many aspects of Environmental Law. Students learn the main structure of the American Legal System: sources of law, classification of law, constitutional principles, and administrative agencies that are involved in environmental issues and concerns. The litigation process for environmental disputes are examined. The evolution

Course Descriptions: CIVIL/CONSTRUCTION, DENTAL HYGIENE

of environmental policy is examined and primary national policies are introduced. Environmental laws that relate to air-quality control, water quality control, toxic substance control, waste management and hazardous releases, energy, and natural resources are examined. International environmental laws, particularly those of Canada, are discussed. Two hours of lecture per week.

CONS 432 CIVIL DRAFTING AND DESIGN

Fall/Spring, 3 credit hours

This course covers the design of infrastructure for land development and the preparation of plans and specifications to construct it. Students design and prepare drawings for water supply, storm sewers, sanitary sewers, roads and site grading and drainage using CAD software. Two hours lecture, three hours laboratory per week. Prerequisites: Advanced Surveying (CONS 203), Hydraulics (CONS 122), Hydrology and Hydrogeology (CONS 385), Soil Mechanics (CONS 314), Highways and Transportation (CONS 470), or permission of instructor.

CONS 472 ADVANCED HIGHWAY DESIGN

Spring, 3 credit hours

This course focuses on the design of pavements in consideration of subgrade conditions and anticipated traffic load and on drainage of roads to meet design storm conditions. Topics include thickness design of pavements, techniques for subgrade improvement, geotextiles, and design of culverts for design storm conditions. Three hours lecture per week. Prerequisites: Hydraulics (CONS 122), Hydrology and Hydrogeology (CONS 385), Soil Mechanics (CONS 314), Highways and Transportation (CONS 470), or permission of instructor.

CONS 477 CAPSTONE PROJECT

Spring, 3 credit hours

This course provides a learning experience that allows a student to propose, design, and implement a project. This could be a study of a problem and solution of specific equipment, new project design, improvement of an existing product, and many others. All projects must be approved by course faculty. Three hours lecture per week. Prerequisites: Completion of seven semester coursework (senior level status) or permission of the program director.

CONS 485 SOLID WASTE MANAGEMENT

Spring, 3 credit hours

This course will introduce students to the governing, management, science, and engineering that impacts solid waste. The role of the federal government in the management of municipal solid waste is discussed, in conjunction with state solid waste legislation. Different types of solid waste streams (e.g. household waste, construction and demolition waste) and their characteristics will be examined. Students learn how to plan municipal solid waste management programs. A significant portion of the course are spent on solid waste landfill engineering and design (e.g. liner systems, covers, leachate collection and treatment systems, groundwater flow and monitoring, gas migration and collection). Construction and operational principles of landfills

are discussed. Opportunities for reduction, reuse, and recycling of solid waste are discussed as one solid waste management technique. Three hours of lecture per week. Prerequisites: Advanced Surveying (CONS 203), Hydrology and Hydrogeology (CONS 385), Soil Mechanics (CONS 314), Water and Wastewater Treatment (CONS 387), or permission of instructor.

CONS 486 SOIL AND GROUNDWATER REMEDIATION

Spring, 3 credit hours

Students learn about the different types and characteristics of soil and groundwater contaminants. Remedial methods and technologies for soil and groundwater contamination are examined. There is review and discussion of federal and state guidance, regulations, and other pertinent legislation. Three hours of lecture per week. Prerequisites: Advanced Surveying (CONS 203) or Introduction to Geographic Information Systems (CONS 350), Hydrology and Hydrogeology (CONS 385), Soil Mechanics (CONS 314), Water and Wastewater Treatment (CONS 387), or permission of instructor.

CONS 487 WATER RESOURCES ANALYSIS, MANAGEMENT, AND DESIGN

Spring, 3 credit hours

This course includes advanced open channel hydraulics, advanced surface water hydrology and groundwater, and well hydraulics. Management of water resources including reuse and alternative supplies is discussed. Conveyance and distribution water, as well as wastewater and stormwater collection and engineering are discussed. Students perform calculations by hand or with spreadsheets and are introduced to public domain water resources software and the Arc-Hydro data model for Geographic Information Systems. Three hours lecture per week. Prerequisites: Hydraulics (CONS 122), Hydrology and Hydrogeology (CONS 385), Introduction to Geographic Information Systems (CONS 350), or permission of instructor.

CONS 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN CIVIL/ CONSTRUCTION ENGINEERING TECHNOLOGY

Fall/Spring, 1-4 credit hours

Special Topics in Civil/Construction Engineering Technology will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available. Prerequisite: permission of the instructor.

DHYG 140 PRE-CLINICAL DENTAL HYGIENE THEORY

Fall, 2 credit hours

This course is an introduction to Dental Hygiene theory including process of care with emphasis on professionalism, basic instrumentation skills and patient assessment processes. Students enrolled in this course must also be registered for DHYG 141. Department policy requires the student to achieve 75% proficiency in all dental hygiene courses to proceed to the next level of study. Students must be matriculated into the Dental Hygiene program. Two hours lecture per week. Corequisites: Pre-Clinical Dental Hygiene (DHYG 141), Dental Radiology (DHYG 145), Oral Anatomy

(DHYG 156) or permission of instructor.

DHYG 141 PRE-CLINICAL DENTAL HYGIENE

Fall, 2 credit hours

This course prepares students to perform the specific skills outlined in the Dental Hygiene Process of Care. Emphasis is placed on professionalism, infection control, basic instrumentation skills and patient assessment processes. Patient assessment processes include conducting a medical history interview, documentation of vital signs, head and neck cancer screening exams, caries detection, assessment of deposits and an evaluation of the periodontium. This will be accomplished through lab demonstrations and clinical practice on manikin and/or lab partners, culminating with an initial two appointment clinic patient experience. All students must submit a comprehensive health history to the clinic coordinator prior to sitting as a practice patient in the clinic. A minimum grade of "C" is required. Department policy requires the student to achieve 75% proficiency in all dental hygiene courses to proceed to the next level of study. Students must be matriculated into the Dental Hygiene program, have CPR/AED and First Aid certification, and have proof of current malpractice insurance. Eight hours clinical per week. Corequisites: Pre-Clinical Dental Hygiene Theory (DHYG 140), Infection Control (DHYG 155), and Oral Anatomy (DHYG 156) or permission of instructor.

DHYG 145 DENTAL RADIOLOGY

Fall, 3 credit hours

Students will study the production, characteristics, and legal significance of x-rays and their use in the dental and dental hygiene setting, the safety measures necessary for the protection of the operator and the patient, the exposure, processing, mounting, storage of film, errors in technique and their methods of corrections. A minimum grade of "C" is required. Students must be matriculated into the Dental Hygiene program. Two hours lecture, two hours laboratory per week. Corequisites: Pre-Clinical Dental Hygiene Theory (DHYG 140), Pre-Clinical Dental Hygiene (DHYG 141), and Oral Anatomy (DHYG 156) or permission of instructor.

DHYG 147 HEAD & NECK ANATOMY

Spring, 2 credit hours

Students study the structure and anatomical systems of the head and neck and are exposed to selected body systems. Emphasis will be placed upon aspects of those systems and structures that have dental significance. This course provides the foundation for conducting a cancer screening exam in the clinical setting and the administration of local anesthesia as part of dental hygiene care. A minimum grade of "C" is required. Two hours lecture per week. Corequisite: Dental Hygiene Theory I (DHYG 150) or permission of instructor.

DHYG 150 DENTAL HYGIENE THEORY I

Spring, 2 credit hours

This course elaborates and expands upon the theories presented in Pre-Clinical Dental Hygiene Theory (DHYG 140), and introduces additional information

Course Descriptions: DENTAL HYGIENE

required when rendering individualized patient care. Specific topics will include dental considerations for patients with chronic diseases taking medications that may impact one's dental health, recording and reading dental charting, recognizing varying levels of dental disease, and determining appropriate interventions. Emphasis will also be placed on instrument sharpening to aid in effective removal of deposits. Students must also register for DHYG 151. A minimum grade of "C" is required to proceed to the next level of study. Two hours lecture per week. Prerequisites: Pre-Clinical Dental Hygiene Theory (DHYG 140), Pre-Clinical Dental Hygiene (DHYG 141), Dental Radiology (DHYG 145), Oral Anatomy (DHYG 156) and Histology & Embryology (DHYG 161), or permission of instructor. Corequisites: Head & Neck Anatomy (DHYG 147), Clinical Dental Hygiene I (DHYG 151), Dental Health Education (DHYG 159), Dental Pathology (DHYG 160), Radiographic Interpretation (DHYG 190), or permission of instructor.

DHYG 151 CLINICAL DENTAL HYGIENE I *Spring, 2 credit hours*

This course is a continuation of Pre-Clinical Dental Hygiene (DHYG 141). Students will practice and develop their skills when assessing, planning, and implementing care for the child, teen, adult and geriatric patient. Emphasis is placed on the healthy patient as well as patients with gingivitis or slight periodontitis. Although the department has a database of patients to work from, the student is responsible for recruiting new patients. A minimum grade of "C" is required to proceed to the next level of study. Students must have CPR/AED and First Aid certification, and have proof of current malpractice insurance. Eight hours of clinical per week. Prerequisites: Pre-Clinical Dental Hygiene Theory (DHYG 140), Pre-Clinical Dental Hygiene (DHYG 141), Dental Radiology (DHYG 145), Infection Control (DHYG 155), Oral Anatomy (DHYG 156), DHYG 161. Corequisites: Head & Neck Anatomy (DHYG 147), Dental Hygiene Theory I (DHYG 150), Dental Health Education (DHYG 159), Dental Pathology (DHYG 160), Radiographic Interpretation (DHYG 190), or permission of instructor.

DHYG 155 INFECTION CONTROL *Fall, 1 credit hour*

This course provides an introduction to the microbial world. This course will provide an overview of the infectious diseases the dental team is potentially exposed to while providing treatment in the dental office, with a strong emphasis on hepatitis, tuberculosis, HIV, and the herpes viruses. Students will be presented with the rationale for practicing infection control procedures; including the use of appropriate PPE, proper equipment asepsis, and instrument processing. Students will also gain experience developing an office safety program and quality assurance logs. OSHA regulations and CDC guidelines provide the foundation for course content. A minimum grade of "C" is required. One hour lecture per week.

DHYG 156 ORAL ANATOMY *Fall, 2 credit hours*

This course examines the structure and function of teeth and associated oral tissues. Laboratory exercises focus on detailed drawings and identification of anatomical landmarks. Students will also practice assessing occlusion and will explain how an individual's occlusion can impact various aspects of dental health. A minimum grade of "C" is required. Students must be matriculated in the Dental Hygiene program. One hour lecture, two hours laboratory per week. Corequisite: Pre-Clinical Dental Hygiene Theory (DHYG 140), Pre-Clinical Dental Hygiene (DHYG 141) or permission of instructor.

DHYG 159 DENTAL HEALTH EDUCATION *Spring, 2 credit hours*

This course provides the necessary background for developing communication skills during individualized instruction in the clinic and group presentations within the community. Students will learn to assess the needs of a diverse population of patients; and will utilize that assessment information to critically develop a dental hygiene diagnosis and appropriate preventive treatment plan for a variety of patients. Throughout this course, students will be exposed to various preventive strategies that can be used to promote and maintain oral health. The student will be expected to develop either a patient education brochure that can be used chairside or design a bulletin board for the clinical area that portrays a preventive message to the observer. Minimum grade of "C" is required. Two hours lecture per week. Corequisites: Dental Hygiene Theory I (DHYG 150), Clinical Dental Hygiene I (DHYG 151), or permission of instructor.

DHYG 160 DENTAL PATHOLOGY *Spring, 2 credit hours*

This course begins with an introduction to the principles of inflammation and repair. The remainder of the course will be devoted to identifying variations of normal and abnormal tissue lesions found on the oral mucosa and surrounding dental tissues, as well as lesions that might be found on the head and neck. Students will be capable of describing the clinical features of each lesion and will identify the lesions on a slide. This course provides the foundation for identifying and documenting pathology when providing dental hygiene care to patients in the clinical setting. Two hours lecture per week. Prerequisites: Oral Anatomy (DHYG 156) with a minimum grade of "C". Corequisite: Dental Hygiene Theory I (DHYG 150), Clinical Dental Hygiene I (DHYG 151) or permission of instructor.

DHYG 161 HISTOLOGY & EMBRYOLOGY *Fall, 1 credit hour*

This course provides the foundation for assessing a patient's oral health status in the clinical setting. During the assessment phase of care, the hygiene student must be capable of distinguishing normal, a variant of normal or a developmental abnormality from a pathology. This course contains basic, general histologic information with a focus on oral tissue components and oral facial development. One hour

lecture per week. Prerequisite: matriculation in the Dental Hygiene program or permission of instructor.

DHYG 190 RADIOGRAPHIC INTERPRETATION *Spring, 1 credit hour*

This course is a continuation of Dental Radiology (DHYG 145). Students will learn to identify and interpret landmarks and pathologies seen radiographically on periapical, bitewing and panoramic radiographs recognizing areas of decay, the severity of periodontal disease, common dental materials, and abnormalities of bone and tooth structure. A minimum grade of "C" is required. One hour of lecture per week. Prerequisites: Pre-Clinical Dental Hygiene Theory (DHYG 140), Pre-Clinical Dental Hygiene (DHYG 141), Dental Radiology (DHYG 145), Oral Anatomy (DHYG 156), or permission of instructor. Corequisite: Dental Hygiene Theory I (DHYG 150), Clinical Dental Hygiene I (DHYG 151), Head & Neck Anatomy (DHYG 147), or permission of instructor.

DHYG 215 PAIN MANAGEMENT *Fall, 1 credit hour*

This course is designed to prepare the dental hygiene student with the necessary theory to appropriately carry out treatment plans and successfully administer topical anesthesia, local infiltration anesthesia and/or nitrous oxide analgesia to increase patient comfort and control pain when providing dental hygiene services. One hour lecture per week. Prerequisite: matriculation in the Dental Hygiene program, Oral Anatomy (DHYG 156), Head & Neck Anatomy (DHYG 147), and Infection Control (DHYG 155) with a minimum grade of "C". Corequisites: Dental Pharmacology (DHYG 221) and Clinical Dental Hygiene II (DHYG 251) or permission of instructor.

DHYG 220 PERIODONTOLOGY *Fall, 2 credit hours*

Emphasis is placed on the structural anatomy of the periodontium, microbiology of plaque, and the pathology of periodontal disease. The student will learn to identify risk factors for periodontal disease, the various components of a comprehensive periodontal chart, treatment modalities utilized in the management of periodontally involved patients, appropriate maintenance intervals, as well as the criteria for determining appropriate referral to a periodontal specialist. Two hours lecture per week. Prerequisite: matriculation in the Dental Hygiene program. Corequisite: Clinical Dental Hygiene II (DHYG 251) or permission of instructor.

DHYG 221 DENTAL PHARMACOLOGY *Fall, 2 credit hours*

This course covers general concepts of drug therapy, drugs used in dentistry, and drugs that may alter dental treatment. The course also covers specific mechanisms of action and clinical applications of therapeutic agents which affect the central and peripheral nervous systems, the heart, the vascular and renal systems, the respiratory and GI systems and the endocrine system. Chemotherapeutic agents, anti-infective agents and anti-neoplastic agents are also discussed. Drugs used in emergencies in the office and special

Course Descriptions: DENTAL HYGIENE

considerations such as drug interactions, pregnant patients and drug abuse are also covered in this course. Two hours lecture per week. Prerequisites: matriculation in the Dental Hygiene program, Anatomy and Physiology I & II (BIOL 217 & 218) with a minimum grade of "C" or permission of instructor.

DHYG 240 DENTAL MATERIALS

Fall, 2 credit hours

This course provides a general overview of the chemical and physical properties and structure of materials in dentistry. A combination of lectures, powerpoints and web assigned activities will prepare the dental hygiene student to develop the skills outlined in the NYS Dental Hygiene Practice Act. Skills will be practiced in the lab setting on a typodont and/or a peer. A minimum grade of "C" is required to proceed to the next level of study. Two hours lecture per week. Corequisite: Dental Materials Lab (DHYG 241) or permission of instructor.

DHYG 241 DENTAL MATERIALS LAB

Fall, 1 credit hour

This course enables the dental hygiene student to develop the skills outlined in the NYS Dental Assisting and Dental Hygiene Practice Act. Skills are learned on a typodont in the lab prior to partner and/or patient practice in the clinical setting. Students will learn the foundation for these skills in Dental Materials (DHYG 240) lecture. A minimum grade of "C" is required to proceed to the next level of study. Three hours laboratory per week. Corequisite: Dental Materials (DHYG 240) or permission of instructor.

DHYG 250 DENTAL HYGIENE II LECTURE/LAB

Fall, 2 credit hours

This course provides an opportunity for the dental hygiene student to practice and master proper technique when managing pain during a dental hygiene appointment. Successful completion of this course will enable the student to qualify for NYS certification in local anesthesia. Emphasis will also be placed on the following dental hygiene skills: extrinsic stain removal, utilization of the intraoral camera, management of the geriatric patient, advanced instrumentation techniques utilized when providing hygiene services for periodontally involved patients. One hour lecture, three hours of laboratory per week. Corequisites: Pain Management (DHYG 215), Periodontology (DHYG 220), Clinical Dental Hygiene II (DHYG 251), or permission of instructor. A minimum grade of "C" is required to proceed to the next level of study.

DHYG 251 CLINICAL DENTAL HYGIENE II

Fall, 3 credit hours

This course is a continuation of Clinical Dental Hygiene I (DHYG 151) with continued emphasis on the dental hygiene process of care. Students will not only provide continued care for patients treated in the second semester but will also assess, plan and implement care for patients with advanced periodontal disease. Students are also expected to demonstrate more efficient time management skills so they are prepared to enter the workforce. A minimum grade

of "C" is required to proceed to the next level of study. Students must have CPR/AED and First Aid certification, and have proof of current malpractice insurance. Twelve hours clinical per week. Prerequisites: Head & Neck Anatomy (DHYG 147), Dental Hygiene Theory I (DHYG 150), Clinical Dental Hygiene I (DHYG 151), and Dental Pathology (DHYG 160), or permission of instructor. Corequisites: Pain Management (DHYG 215), Periodontology (DHYG 220), Dental Pharmacology (DHYG 221), Dental Materials (DHYG 240), Dental Materials Lab (DHYG 241), Dental Hygiene II Lecture/Lab (DHYG 250), or permission of instructor.

DHYG 256 MEDICAL EMERGENCIES IN THE DENTAL OFFICE

Fall, 1 credit hour

This course discusses the steps taken to reduce the risk of medical emergencies in the dental office; prepares the student to identify the early signs of various medical emergencies, and summarizes the steps taken to properly manage emergency situations while waiting for a paramedic to arrive on the scene. Students read weekly lectures and submit assignments through SUNY Canton's course management system Angel. A minimum grade of "C" is required to proceed to the next level of study.

DHYG 260 COMMUNITY DENTAL HEALTH

Spring, 2 credit hours

This writing intensive course is an introduction to the philosophy of community dental health and explores principles of community based oral health program assessment, planning, implementation, and evaluation. In addition, fluoridation, dental health education, epidemiology of dental diseases, and the use of biostatistical methods and materials for research, program planning, and assessment are discussed. Two hours lecture per week. Prerequisite: matriculation in the Dental Hygiene program. Corequisite: Clinical Dental Hygiene III (DHYG 270) or permission of the instructor.

DHYG 263 DENTAL NUTRITION

Spring, 2 credit hours

Study of current topics in nutrition along with basic principles of nutrition. Dietary counseling in relationship to dental health and incorporation of nutrition education in a dental office practice. Diet modifications for clients (patients) with special needs will also be reviewed. Two hours lecture per week. Prerequisite: matriculation in the Dental Hygiene program. Corequisite: Clinical Dental Hygiene III (DHYG 270) or permission of the instructor.

DHYG 270 CLINICAL DENTAL HYGIENE III

Spring, 4 credit hours

This course is a continuation of DHYG 251 Clinical Dental Hygiene II with emphasis on individualized comprehensive dental hygiene care for the periodontally involved patient. Students will administer topical and local anesthesia to manage patient discomfort during scaling and root planing procedures. Each student will also have an opportunity to administer a locally delivered antimicrobial agent. Instructional labs will

be utilized to acquire practice managing patients in specialty practices and alternative practice settings such as nursing homes. Students must have current CPR/AED certification, and current malpractice insurance. Three hours teaching laboratory, twelve hours clinical per week. Prerequisites: Pain Management (DHYG 215), Periodontology (DHYG 220), Dental Pharmacology (DHYG 221), Dental Materials (DHYG 240), Dental Materials Lab (DHYG 241), Dental Hygiene II Lecture/Lab (DHYG 250), Clinical Dental Hygiene II (DHYG 251), or permission of instructor. Corequisites: Senior Seminar (DHYG 285) and Special Needs Patients (DHYG 290) or permission of instructor.

DHYG 280 ETHICS & JURISPRUDENCE

Spring, 1 credit hour

This course is designed to show the relationship between the law and the dental profession; and to provide the hygiene student with the necessary skills to practice within the law. All students will complete a child abuse recognition training that will fulfill the necessary pre-requisite requirement for licensure in NYS. Students will not only recognize signs of abuse but will become familiar with the reporting protocols. All students will develop a resume and will have an opportunity to partake in a mock interview. The course will conclude with discussions on marketing and practice management techniques that will prepare students for entry into the workforce. One hour lecture per week. Prerequisite: matriculation into the Dental Hygiene program or permission of the instructor.

DHYG 285 SENIOR SEMINAR

Spring, 1 credit hour

This capstone course emphasizes case based learning, which involves the integration of theory, knowledge, and research and its individualized practical application to patient care. Students will review cases and apply the knowledge accumulated in their two years of dental hygiene studies to plan and manage care for the pediatric, geriatric, adult periodontal, and the medically compromised patient. The course is designed to prepare students for the dental hygiene licensing exams. Two hours lecture per week for seven weeks. Prerequisites: matriculation in the Dental Hygiene program and Dental Hygiene II Lecture/Lab (DHYG 250), Clinical Dental Hygiene II (DHYG 251). Corequisite: Clinical Dental Hygiene III (DHYG 270) or permission of the instructor.

DHYG 290 SPECIAL NEEDS PATIENTS

Spring, 1 credit hour

This course will heighten the hygiene student's understanding of the dental needs of patients with varying medical conditions as well as those with physical, sensory and emotional conditions that can impact a patient's oral health and require modified care during the dental appointment. Understanding the dynamic oral-systemic link will enable the student to develop appropriate treatment plans and provide individualized, patient centered care for all patients. A minimum grade of "C" is required. One hour lecture per week. Prerequisite: matriculation into the Dental Hygiene program or permission of the instructor.

Course Descriptions: DENTAL HYGIENE, EMERGENCY MANAGEMENT

DHYG 310 CONTEMPORARY ISSUES IN DENTAL HYGIENE

Spring, 3 credit hours

This course examines current societal and professional issues and their impact on dental hygiene practice. The student will discuss the graying of America and its impact on the delivery of dental care. Age-related changes that occur in the oral cavity will be identified and treatment considerations including access to care will be discussed. Students will examine the roles of the dental hygienist and discuss the dental hygienists' role in increasing access to dental care. Students will research and compare traditional and alternative practice models, and propose changes to improve dental care delivery. Three hours lecture per week. Writing intensive course.

DHYG 340/BSAD 340 MANAGEMENT COMMUNICATIONS

Fall/Spring, 3 credit hours

This course introduces students to the foundations of effective management communication. It focuses on communicating strategically and persuasively in a professional environment. Skills such as advocacy, framing issues clearly and strategically, preparing a team for communicating in a competitive environment, facilitating meetings, and adapting arguments to audiences' needs will be developed. Three hours lecture per week. Prerequisite: Business Communications (BSAD 200) or another program specific writing intensive course or permission of instructor.

DHYG 350 CURRENT ISSUES IN PERIODONTICS

Fall, 3 credit hours

Students taking this course will research and discuss current studies in periodontology and related disciplines to identify factors which may modify theory or practice. Focus will be placed on the relationship of periodontal health to systemic health, current concepts in etiology, risk factors, assessment, and treatment. Three hours lecture per week.

DHYG 360 DENTAL HYGIENE TEACHING METHODOLOGY

Fall, 4 credit hours

This course provides the dental hygienist with the background to become an effective classroom and clinical instructor. Students will discuss the current philosophy of dental hygiene education and the American Dental Associations' accreditation requirements regarding course syllabi, instructional objectives, learning experiences, evaluation procedures and remediation policies. Students will explore the various learning styles and classroom techniques that can be utilized to incorporate all learning styles, motivate the learner and enhance the learning process. Four hours lecture per week.

DHYG/NURS/SSCI 370 RESEARCH METHODS IN SOCIAL AND HEALTH SCIENCES

Fall/Spring, 3 credit hours

This course provides an intense comprehensive study of the scientific research process utilized in the social and health sciences. Students will be trained to be critical consumers of published research and will

be expected to complete a research project. Topics that will be covered include the underlying theory of research; and data management and presentation. Three hours lecture per week. Prerequisite: Introduction to Psychology (PSYC 101), or Introduction to Sociology (SOCI 101), or Introduction to Science and Technology of Behavior (SSCI 245), or Principles of Macroeconomics (ECON 101), or Principles of Microeconomics (ECON 103); Statistics (MATH 141) or equivalent course work, and Expository writing (ENGL 101) or Oral and Written Expression (ENGL 102), or permission of the instructor. Additionally, students must have at least junior level status or permission of the instructor.

DHYG 385 ORIENTATION TO INTERNSHIP

Fall, 1 credit hour

An internship is required to complete degree requirements for the Bachelor of Technology in Dental Hygiene. This course is a pre-requisite course that will provide students with a clear sense of direction and will enhance success in DHYG 390. The instructor will discuss best practices when searching for internship opportunities as well as the fundamentals for developing an internship contract that meets SUNY Canton guidelines. Students are expected to identify their anticipated goals and will submit a proposed time schedule for completing the proposed internship. Students will also be provided with some guidance for documenting daily reflections and activities in a journal and tips for building a professional portfolio. One hour lecture per week.

DHYG 390 DENTAL HYGIENE INTERNSHIP

Spring, 6 credit hours

This internship course enables students to acquire practical experience in a variety of professional settings that draw on concepts and skills gained from the academic experience. Students will develop new knowledge and skills by taking an active role in the cooperating organization. Students will develop an internship contract based on personal interests and career aspirations. Internship proposals must be presented and approved prior to registration for the course. Students must complete a minimum of 240 hours of internship study. Placement cannot be in their workplace.

EADM 201 FUNDAMENTALS OF EMERGENCY MANAGEMENT: HISTORY, PERSPECTIVES, AND THEORIES

Fall, 3 credit hours

This course presents the theories, principles, and approaches to emergency management. The philosophy of Comprehensive Emergency Management (CEM) will be discussed with the four attendant steps of: mitigation, preparedness, response, and recovery. An analysis of past disasters will be presented along with their impacts on policy formation leading up to the current FEMA all-hazards approach. The role, duties, and importance of the Emergency Manager will be discussed throughout the semester. Finally, a brief review of basic legal issues involving emergency management will be presented. Three hours lecture per week.

EADM 205 RISK & HAZARD IMPACT STUDIES

Fall, 3 credit hours

The course focuses on a generalized technical understanding and an awareness of various types of natural hazards. Central to the course is the understanding of technical cooperation regarding hazard and vulnerability assessments, inclusion of hazard mitigation measures in the formulation of investment projects, use of geographic information systems for mapping and analysis, and urban watershed planning for hazard and resource management. The course includes some, but not all, of the disaster mitigation and integrated development planning. Three hours lecture per week. Prerequisites/corequisites: Fundamentals of Emergency Management: History, Perspectives and Theories (EADM 201), GER Math and Introductions to Information Technology (CITA 110) or permission of instructor.

EADM 220 DISASTER MANAGEMENT & PREPAREDNESS

Spring, 3 credit hours

The course presents new and innovative methods for preparing communities and organizations to address general and substantial risk of disasters and emergencies in the workplace. It encompasses the tactics used by safety experts and additionally focuses on expanded proactive measures to safeguard lives and assets from natural disasters to acts of terrorism. Focuses of the course include planning, assessing and responding to potential threats, decreasing potential harm and recovery considerations at the community and organizational level. Three hours lecture per week. Prerequisite: Fundamentals of Emergency Management: History, Perspectives, and Theories (EADM 201), Risk & Hazard Impact Studies (EADM 205) or permission of instructor.

EADM 222 COMMUNITIES: PREPAREDNESS & DEFENSE

Spring, 3 credit hours

The course presents new and innovative methods for preparing communities and organizations to address general and substantial risk of disasters and emergencies in the workplace. It encompasses the tactics used by safety experts and additionally focuses on expanded proactive measures to safeguard lives and assets from natural disasters to acts of terrorism. Focuses of the course include planning, assessing and responding to potential threats, decreasing potential harm and recovery considerations at the community and organizational level. Three hours lecture per week. Prerequisites: Fundamentals of Emergency Management: History, Perspectives, and Theories (EADM 201) or permission of instructor.

EADM 225 EMERGENCY MANAGEMENT SKILLS

Fall/Spring, 3 credit hours

The course provides the skills for new and future managers for building emergency management systems. The course builds leadership, communication, decision making and problem solving skills. The course develops basic leadership concepts and skills, explores incident command systems and industrial incident management, and reviews regulatory compliance

Course Descriptions: EMERGENCY MANAGEMENT, EARLY CHILDHOOD

and regulatory standards for emergency preparedness. Incident management situations are simulated. Simulations consist of both pre-exercise training (orientation seminars and drills) and the exercises themselves: tabletops, functional exercises and full-scale virtual exercises. Three hours lecture per week.

EADM 307 **LEGAL ISSUES IN E&D** *Spring, 3 credit hours*

This course provides a general overview of the major legal and liability issues in emergency management. The focus is on the legal environment within which emergency managers operate, including their roles in rule-making, policy administration, and their potential personal legal liability for discretionary actions. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral & Written Expression (ENGL 102), and Risk and Hazard Impact Studies (EADM 205) or permission of instructor.

EADM 340 **DISCIPLINES, DISASTERS AND EMERGENCY MANAGEMENT** *Fall/Spring, 2 credit hours*

This course examines the growing consensus that a multi- and inter-disciplinary approach to the study of disasters and emergency management needs to take place. Each discipline's contribution is studied and then examined to see how combining them with other approaches can improve our understanding of the field of emergency management. Two hours lecture per week. Prerequisite: Disaster Management and Preparedness (EADM 220) or permission of instructor.

EADM 350 **CASE STUDIES IN EMERGENCY MANAGEMENT** *Fall/Spring, 2 credit hours*

This course is comprised of a number of case studies of historical emergencies or disasters, which illustrate what decisions worked and did not work. Several of the case studies are open-ended scenarios based on real-life events. These open-ended scenarios challenge students to investigate, analyze, and make real-time decisions under conditions of incomplete information and conflicting stakeholders goals. Two hours lecture per week. Prerequisite: Disaster Management and Preparedness (EADM 220) or permission of instructor.

EADM 400 **INCIDENT COMMAND: SYSTEM COORDINATION & ASSESSMENT** *Fall, 3 credit hours*

The Incident Command System (ICS) is the nationally recognized system for managing emergencies and disasters. Several states and federal agencies have adopted ICS as their standard for emergency management. ICS provides education and training for those who are not first responders (i.e., law enforcement, fire, or emergency medical services personnel) who may be called upon to function in an ICS environment. The course includes a large number of scenarios, examples, and opportunities for students to apply what they have learned. Three hours lecture per week. Prerequisite: Risk & Hazard Impact Studies (EADM 205) or permission of the instructor.

EADM 430 **SIMULATED DISASTER TRAINING** *Fall/Spring, 3 credit hours*

This course is designed for students to acquire the knowledge and skills necessary to develop, conduct, and evaluate activities and exercises. Students will assess and evaluate an exercise in actual emergency and/or disaster situations. Three hours lecture per week. Prerequisites/corequisites: Management Communications (BSAD 340) and Incident Command: System Coordination & Assessment (EADM 400) or permission of instructor.

EADM 435 **DISASTER SIMULATION** *Spring, 6 credit hours*

The course is a highly structured applied interactive educational and training simulation experience that requires the student to participate in sequential exercises that focus on the application of skills and abilities in emergency and disaster management. Students will create an operational scenario, assess its application, calculate applicable scenario coordination, and conduct the evaluation of exercise(s) participant performance associated with an actual emergency and/or disaster situation. Participants are required to develop, conduct, and evaluate these activities through the use of phased proficiency exercise applications. Six hours lecture per week. Prerequisite: Simulated Disaster Training (EADM 430) or permission of instructor.

EADM 480 **INTERNSHIP IN EMERGENCY AND DISASTER MANAGEMENT** *Fall/Spring, 3, 6 or 9 credit hours*

The EADM internship is an academic program integrating classroom work and practical experience with cooperating agencies. The internship allows seniors the opportunity to apply classroom learning in emergency and disaster response associated agencies. It is a structured experience in which an intern acquires and applies knowledge and skills, while working in a responsible role. Working with a supervisor at the placement site, the student will perform prescribed work in an agency engaged in emergency and disaster management. The internship is tailored to the individual student's career interests and the needs of the supervising organization. Forty hours per work week is required. Prerequisites: Incident Command: System Coordination & Assessment (EADM 400), senior level status in the Emergency Management program, or permission of instructor.

EADM 485 **SENIOR PROJECT** *Fall/Spring, 3, 6, or 9 credit hours*

Students will complete a senior research project specifically addressing issues in the emergency and disaster management arena. Under the guidance of a faculty mentor, the student will submit a research proposal, conduct research, prepare a thesis style report, and present a defense to a thesis committee. Prerequisite: Incident Command: System Coordination & Assessment (EADM 400) or permission of instructor.

ECHD 101 **INTRODUCTION TO EARLY CHILDHOOD** *Fall, 3 credit hours*

An overview of the history, theories, and phi-

losophies that form the foundation of Early Care and Education. All aspects of development (physical, cognitive, social-emotional, and communication) are presented and studied within an ecological context (family, community, culture, society). Specific emphasis is placed on understanding the various roles/responsibilities primary teachers have in fostering the well-being and development of young children from birth-6 years. Observation of children is an integral part of the learning process in this course. Three hours lecture per week.

ECHD 121 **WELLNESS IN YOUNG CHILDREN: PROMOTING HEALTH, SAFETY, NUTRITION, AND DEVELOPMENT** *Fall, 3 credit hours*

A combination of lecture, discussion, and exercises designed to develop the knowledge and skills necessary for working with young children. This course focuses on integrating health, safety, and nutritional activities into early childhood settings to promote the well-being of children. Three hours lecture per week. Prerequisite: Introduction to Early Childhood (ECHD 101) or permission of instructor. ECHD majors only.

ECHD 123 **STUDENT TEACHING ORIENTATION** *Spring, 1 credit hour*

The Student Teaching Orientation will prepare students for their internship experiences in Early Childhood. Students will become familiar with field work requirements, policies and procedures, professionalism, ECE programs, the role of the college supervisor and site mentor, and the responsibilities and expectations of the student teaching experience. One hour lecture per week. Prerequisite: Introduction to Early Childhood (ECHD 101). Corequisite: Curriculum Development (ECHD 125) or permission of instructor. ECHD majors only.

ECHD 125 **CURRICULUM DEVELOPMENT** *Spring, 3 credits hours*

This course will examine developmentally appropriate practices and curriculum methods in early care and education. Students will create and implement lessons, activities and units that promote the development of the whole-child. Special emphasis will be given to the process of curriculum development, curriculum methods, child-centered planning and active learning experiences for children. ECHD majors only. Three hours lecture per week. Prerequisite: Introduction to Early Childhood (ECHD 101). Corequisite: Student Teaching Orientation (ECHD 123) or permission of instructor.

ECHD 131 **INFANTS AND TODDLERS** *Spring, 3 credit hours*

Supporting the social, cognitive, emotional, and physical development of children under the age of 3 years requires that their caregivers have a solid understanding of child development, developmentally appropriate practice, and child guidance for young children. This course will explore these content areas fully and challenge students to integrate their knowledge into a framework for guiding responsible decision-making in providing optimal high quality

Course Descriptions: EARLY CHILDHOOD, ECONOMICS

care for infants and toddlers. Sensitivity to diverse family and cultural perspectives and the needs of children with disabilities is imbedded throughout the course. Three hours lecture per week. Prerequisite: Introduction to Early Childhood (ECHD 101) or permission of instructor. ECHD majors only.

ECHD 200 PLANNING PROGRAMS FOR YOUNG CHILDREN

Spring, 3 credit hours

Students apply concepts of developmentally appropriate practice as they relate to the design of programs for young children. The curriculum will be viewed from the perspective of program philosophy, physical environment, materials selection/arrangement, learning centers and scheduling. Principles of program planning related to high quality early care and education, administration and leadership will be applied. Three hours lecture per week. Prerequisite: Introduction to Early Childhood (ECHD 101) or permission of instructor. ECHD majors only.

ECHD 201 STUDENT TEACHING EXPERIENCE I W/ SEMINAR

Fall, 4 credit hours

This course is an off-campus practicum in early childhood. Students are assigned to a child care, Head Start, pre-k or kindergarten setting and work under the direct supervision of a classroom teacher. Students are required to complete an 80-hour student teaching experience applying the knowledge and skills acquired through coursework. Students will observe, participate, plan, and implement lessons and activities throughout their experience. Students are required to attend one-hour weekly seminars to reflect on their development and field experiences, lead by the college supervisor. Prerequisites: minimum 2.0 GPA in Introduction to Early Childhood (ECHD 101), Student Teaching Orientation (ECHD 123), and Curriculum Development (ECHD 125), or permission of instructor. ECHD majors only.

ECHD 202 STUDENT TEACHING EXPERIENCE II W/ SEMINAR

Spring, 6 credit hours

This course is an off-campus practicum in early childhood. Students will further develop and apply their knowledge and skills in an early childhood classroom. Students are responsible for planning and implementing weekly child-centered curriculum. Training and supervision are provided by an on-site mentor and the college supervisor. One hundred twenty clock hours of supervised fieldwork at an assigned early childhood program. Students are required to attend one-hour weekly seminars to reflect on their development and field experiences, lead by the college supervisor. Prerequisite: Student Teaching Experience I w/Seminar (ECHD 201) with a minimum grade of C+ or permission of instructor. ECHD majors only.

ECHD 250 CHILDREN WITH SPECIAL NEEDS

Fall, 3 credit hours

This course will explore various special needs of young children. Students will gain knowledge of inclusive practices, teaching modifications, prevention

and intervention strategies and support services for children, families and the community. Assessment, identification and general knowledge of the special needs of all children will be examined as well as social policies and initiatives to support teachers and children. Three hours lecture per week. Prerequisite: Introduction to Early Childhood (ECHD 101) and Child Development (PSYC 220) or permission of the instructor.

ECHD 285 ISSUES & POLICIES IN EARLY CARE & EDUCATION

Spring, 3 credit hours

Students will draw from academic, life and student teaching experiences to explore current issues and policies in the field of early education and care. Social issues impacting the well-being of children, families and the community will be explored. Students will research issues and investigate approaches to resolving some of these challenges. Three hours lecture per week. Prerequisite: Introduction to Early Childhood (ECHD 101) or Introduction to Sociology (SOCI 101) or Introduction to Psychology (PSYC 101) and have earned more than 30 credit hours or permission of instructor. Writing intensive course.

ECHD 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN EARLY CHILDHOOD

Fall/Spring, 1-4 credit hours

Individual courses of instruction of variable credit (1-4 credits) may be offered each semester. These courses are designed to expand on topics in specific areas of early childhood. Prerequisite: depends on the nature of each course.

ECON 101 PRINCIPLES OF MACROECONOMICS

Fall/Spring, 3 credit hours

GER 3

A study of the market economy, the role of government, income determination, the business cycle, inflation, unemployment, the banking system, monetary and fiscal policy, population, economic growth, and international trade. Three hours lecture per week.

ECON 103 PRINCIPLES OF MICROECONOMICS

Fall/Spring, 3 credit hours

GER 3

A study of supply, demand, elasticity, theory of the firm, market structures, government regulation, marginal productivity theory, and selected contemporary economic issues. Three hours lecture per week. Prerequisite: Macroeconomics (ECON 101) or GER Math or permission of instructor.

ECON 105 SURVEY OF AMERICAN ECONOMIC HISTORY

Spring, 3 credit hours

GER 4

Fundamental tools of economics will be used to explain important events and issues in the history of the United States. Topics to be surveyed include the United States' growth and transformation into an industrialized nation, development and transitions in American labor, consumers and culture, the rise of corporate America, changes in the role of government, economic regulations, monetary and fiscal policy, the origins of major institutions and their economic impact, and increased global awareness. Three hours

lecture per week.

ECON 120 INTRODUCTION TO LABOR STUDIES

Fall/Spring, 3 credit hours

Within an historical context, this course examines the economic, social and technical forces that shape labor conditions in the USA. Among the topics covered are: the changing nature of work under capitalism, collective bargaining, theory and value of workplace skills, and the impact of economic globalization on labor. Three hours lecture per week.

ECON 201 ECONOMICS AND SOCIAL ISSUES

Fall/Spring, 3 credit hours

GER 3

This course applies basic economic concepts to contemporary social issues. The current real world public policies surrounding these issues will be examined, as well as the impact such policies have on society. Three hours lecture per week.

ECON 301 REGIONAL ECONOMIC DEVELOPMENT IN AFRICA

Fall/Spring, 3 credit hours

GER 6

This course provides an analytical study of economic development of one specific African region. Topics to be covered include inequality, poverty, economic growth, demography, fertility, mortality, migration, employment, education, health, trade, globalization, food production, nutrition, environment, and sustainable development. Different African regions (Central Africa, East Africa, North Africa, Southern Africa, and West Africa) will be studied on a cycle. Students may take one "Regional Economic Development In Africa" for Gen Ed. 6 credit. Students may take two "Regional Economic Development in Africa" for elective credits if different regions. Three hours lecture per week. Prerequisites: Macroeconomics (ECON 101), or Microeconomics (ECON 103), or Introduction to Sociology (SOCI 101), or Statistics (MATH 141) or permission of the instructor.

ECON 314 MANAGERIAL ECONOMICS

Spring, 3 credit hours

GER 3

Global case studies from the private, public and nonprofit sectors will be utilized to illustrate the application of economic theory and quantitative methods to managerial decision making. Students will engage in problem solving exercises that will integrate various principles of business, statistics and economics to determine market forecast, pricing strategy, resource usage, and production level. Three hours lecture per week. Prerequisites: Foundations of Financial Accounting (ACCT 101) and student must have met the General Education Requirement in Math, or Principles of Microeconomics (ECON 103), or permission of instructor.

ECON 315 GLOBAL ECONOMY

Fall, 3 credit hours

GER 6

Students will examine the historical development of the global economy and the increase interdependence of economies, governments, and public policy. Economic theories in international trade, finance and monetary policy will be explored within the context

Course Descriptions: ECONOMICS, EDUCATION, ELECTRICAL

of globalization. Contemporary global economic issues such as the environment, income distribution, and development will be analyzed using case studies from various nations. Three hours lecture per week. Prerequisites: Principles of Microeconomics (ECON 103) or permission of instructor.

ECON 320 **ENVIRONMENTAL ECONOMICS** *Fall, 3 credit hours*

Issues and policies involving renewable and nonrenewable energy, natural resource management, pollution control, global climate change, and sustainable development will be explored through traditional neoclassical economics as well as through the contemporary approach of ecological economics. Three hours lecture per week. Prerequisites/corequisites: Principles of Macroeconomics (ECON 101) or Principles Microeconomics (ECON 103), GER Math and a minimum of 45 college credits with a GPA of 2.0 or better, or permission of the instructor.

ECON 291-295, 391-395, OR 491-495 **SPECIAL TOPICS IN ECONOMICS** *Fall/Spring, 1-4 credit hours*

An introductory or more advanced exploration of subjects not covered or only partially covered by other courses in economics.

EDUC 207 **LITERACY I** *Fall/Spring, 3 credit hours*

Designed for preservice teachers responsible for teaching literacy skills to children in Grades 1-6. This is a beginning literacy methods course that teaches the "whys" and "hows" of developmental literacy.

This course is designed to provide prospective elementary classroom teachers with opportunities to develop concepts about reading, language, viewing, listening, and thinking skills and to help students successfully apply their developing skills to many different situations, materials, and ideas. This course is usually the first of two courses in literacy in a childhood education program. Three hours lecture per week. Prerequisite: 30 college credits including Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) with a cumulative GPA of 2.0, or permission of instructor.

EDUC 210 **PRINCIPLES OF EDUCATION** *Fall/Spring, 3 credit hours*

A general introduction to education in North America. Topics include: characteristics and needs of learner; goals and objectives of elementary education; nature of knowledge and learning; teaching strategies, based on accepted learning models; educational role of the teacher; attitude and value teaching; nature of evaluation; and nature of curriculum. Includes field work per week. Prerequisites: 30 college credits with a 2.0 GPA.

EDUC 300 **THE PEDAGOGY & TECHNOLOGY OF ON-LINE LEARNING** *Fall/Spring, 3 credit hours*

This course will provide the student with fundamental information with which to design and deliver an effective On-line Distance Learning course. In

doing so, aspects of pedagogy, methodology, and technique will be integrated with elements of course design and structure. Three hours lecture per week. Prerequisites: Junior level status and 2.5 GPA with prior education courses or teaching experience, or permission of instructor.

EDUC 291-295, 391-395 OR 491-495 **SPECIAL TOPICS: EDUCATION** *Fall/Spring, 1-4 credit hours*

An introductory or more advanced exploration of subjects not covered by other courses currently available. These courses are designed to expand on topics in specific areas of education or current issues in the professional field of education.

ELEC 100 **INTRODUCTION TO BASIC ELECTRICITY** *Fall/Spring, 3 credit hours*

This course introduces students to the foundation of AC and DC electricity and explores electrical quantities (current, voltage, resistance, power, capacitance and inductance), basic circuit laws with emphasis on electrical measurement through the use of analog and digital devices and building simple circuits from schematics. Additional topics include relays, transformers and motors and electrical safety. Two hours lecture, two hours laboratory per week. Corequisite: Technical Math & Graphing Calculators for Trade (SOET 150) or permission of instructor.

ELEC 101 **ELECTRIC CIRCUITS 1** *Fall, 3 credit hours*

An introductory course stressing the understanding of basic concepts and principles of direct current and alternating current electricity. Students will analyze resistive, capacitive and inductive circuits and develop computational skills. Three hours lecture per week. Corequisite: College Algebra (MATH121) or permission of instructor.

ELEC 102 **ELECTRIC CIRCUITS 2** *Spring, 3 credit hours*

A continuation of Electric Circuits 1, stressing the understanding of concepts that involve impedance, resonance, transformers and three phase systems. Students will analyze circuits of various configurations and enhance computational skills. Three hours lecture per week. Prerequisite: Electric Circuits 1 (ELEC 101) and College Algebra (MATH121) or permission of instructor.

ELEC 109 **ELECTRIC CIRCUITS 1 LABORATORY** *Fall, 1 credit hour*

An introductory laboratory course stressing the understanding of basic concepts and principles of direct current and alternating current electric circuits by analyzing resistive, capacitive and inductive circuits through practical laboratory application. Students will also study circuits using circuit analysis software. Two hours laboratory per week. Corequisite: Electric Circuits 1 (ELEC 101) and College Algebra (MATH121) or permission of instructor.

ELEC 111 **DIGITAL CIRCUITS** *Fall, 2 credit hours*

An introductory course designed to familiarize the student with basic logic circuits and techniques used in all modern digital systems. Topics include number systems, Boolean algebra, DeMorgan's theorem, combinational logic circuits (AND, OR, INVERTER, NOR, NAND, exclusive OR, and NOR gates; adders and subtractors), TWO's complement arithmetic, and introduction to sequential logic circuits (latches and flip-flops). Four hours laboratory per week.

ELEC 125 **DIGITAL SYSTEMS FOR TELECOMMUNICATIONS I (VERIZON PROGRAM)** *Spring, 4 credit hours*

This course presents topics in hardware and systems as used in the telecommunications industry. Electrical and digital circuits are explored. Binary numbers systems are discussed as applied to telecommunications equipment. Students will explore hardware to the modular level. Student will demonstrate use of and simulate digital circuits. Three hours lecture and 2 hours laboratory per week. Prerequisites: Technical Math 1 (MATH 135) and Computer Applications for Telecommunications (CITA 116) or permission of instructor.

ELEC 126 **DIGITAL SYSTEM FOR TELECOMMUNICATIONS II (VERIZON PROGRAM)** *Fall, 4 credit hours*

In this course students will be working with hardware and software installation with an introduction of the personal computer fundamentals. Students will connect a personal computer to a network and install and set up a printer. The course will cover managing and supporting Windows. Configure user related issues and customization. Learning how to maintain a computer and troubleshooting fundamentals. An optional topic would cover Home Technology Integration including surveillance and home automation. The course is composed of lecture and in-class demonstration. Four hours of lecture per week. Prerequisites: Digital System for Telecommunications I (ELEC 125) or permission of instructor.

ELEC 129 **ELECTRIC CIRCUITS 2 LABORATORY** *Spring, 1 credit hour*

A continuation of Electric Circuits 1 Laboratory, stressing the understanding of concepts that involve impedance, resonance, transformers and three phase systems. Students will study circuits of various configurations using practical laboratory application. Two hours laboratory per week. Prerequisite: Electric Circuits 1 Laboratory (ELEC 109) and College Algebra (MATH121) or permission of instructor.

ELEC 132 **ELECTRONICS 1** *Fall, 4 credit hours*

A hands-on study of electronic devices and instruments used in industrial electronics. The student is introduced to the theory and operation of electronic devices such as diodes, power supplies, oscilloscopes

Course Descriptions: ELECTRICAL

and other electronic test equipment. The course is designed to meet the St. Lawrence County Apprentice Program needs. Four hours lecture per week.

ELEC 133 ELECTRONICS 2 *Fall, 4 credit hours*

A hands-on study of electronic devices and instruments used in the industrial electronics. The student is introduced to the theory and operation of electronic devices such as basic amplifiers, oscillators, special purpose tubes, magnetic amplifiers, transistors, basic transistor circuits and special semiconductor devices. This course is designed to meet the St. Lawrence County Apprentice Program needs. Four hours lecture per week. Prerequisite: Electronics 1 (ELEC 132) or permission of instructor.

ELEC 141 INDUSTRIAL CONTROLS *Spring, 2 credit hours*

A hands-on study of devices and systems used in the control of industrial machinery. The student is introduced to the theory and use of electromechanical control circuits by use of traditional "hardwire circuits." The programming of the Allen-Bradley Micro Logix 1000 type of programmable logic controller (PLC) is practiced. An introduction to sequencer systems that enable complex control and monitoring of machines is given. Emphasis is on learning the ability to program the equipment for effective control. Four hours laboratory per week. Prerequisite: Electric Circuits 1 and Laboratory (ELEC 101/109) OR Electricity (ELEC 261), Digital Circuits (ELEC 111) OR a basic electricity course (i.e. ELEC 261) with an introduction to three phase systems, basic logic gates, binary and hexadecimal number systems, or permission of instructor.

ELEC 145 TELECOMMUNICATIONS ELECTRICAL CIRCUITS (VERIZON PROGRAM) *Spring, 4 credit hours*

In this course students learn to analyze DC and AC passive circuits using Ohm's Law, Kirchhoff's laws, and Superposition Theory. RC and RL circuits are analyzed for impedance and phase angles; troubleshooting, analysis by computer simulation using simulation software, and telecommunications applications are stressed throughout. Four hours lecture per week. Prerequisites: Technical Math II (MATH 136) and Verizon Computer Applications (CITA 116) or permission of instructor.

ELEC146 ELECTRONIC SYSTEMS FOR TELECOMMUNICATIONS I (VERIZON PROGRAM) *Fall, 4 credit hours*

This course covers the analysis and application of advanced electronic circuits as applied to the telecommunications industry. Topics include frequency response of filters, op-amps, oscillators, amplitude modulation, noise and LC circuits. Four hours lecture per week. Prerequisites/corequisites: Telecommunications Electrical Circuits (ELEC 145), Technical Physics (PHYS 108) or permission of instructor.

ELEC 151 WIRELESS COMMUNICATIONS I *Fall, 2 credit hours*

The first course in the Wireless Communication sequence. Topics include the introduction of the RF spectrum and types of wireless services, Semiconductor operating principles, Zener diodes, Bipolar and Field Effect Transistors characteristics. One hour lecture, two hours laboratory per week. Corequisite: Electric Circuits 1 and Laboratory (ELEC 101/109) or permission of instructor.

ELEC 152 WIRELESS COMMUNICATIONS II *Spring, 3 credit hours*

The second course in the Wireless Communication sequence. Topics include the fundamentals of amplifier gain and the Decibel unit, introduction to the Frequency Domain concept, linear and non-linear mixing, characteristics of Amplitude and Frequency Modulation, Basic RF transmission line theory, wave propagation, and transmitting and receiving antenna characteristics. Two hour lecture, three hours laboratory per week. Prerequisite: Wireless Communications I (ELEC 151) or permission of instructor. Corequisite: Electric Circuits 2 and Laboratory (ELEC 102/129) or permission of instructor.

ELEC 161 ELECTRONIC FABRICATION *Fall, 2 credit hours*

Stresses practical fabrication techniques used in electronic and communication industries. Focuses on aspects of designing, installing, testing and troubleshooting fabrication methods used in assembly and repair of electronic equipment. One hour lecture, two hours laboratory per week.

ELEC 165 DIGITAL FUNDAMENTALS & SYSTEMS *Fall, 3 credit hours*

This course covers topics include: number systems, operations and codes, logic gates, Boolean algebra and logic simplification, combinational logic analysis, functions of combinational logic, latches, flip-flops, timers, and counters. Three hours of lecture per week. Prerequisites: Electric Circuits 1 and Laboratory (ELEC 101/109), or permission of instructor.

ELEC 166 DIGITAL FUNDAMENTALS & SYSTEMS LABORATORY *Fall, 1 credit hour*

This is a digital laboratory course with emphasis on topics include: Logic Gate Systems, Arithmetic Systems, Code Converters, Multiplexer and Demultiplexer, JK Flip-Flop Circuits, Counters, Shift Registers, Timers, Matrix Keypad Encoder, Serial and Parallel Data Transfer, Digital Circuit Troubleshooting. Two hours of laboratory per week. Prerequisites: Electric Circuits I/Lab (ELEC 101/109), corequisite: Digital Systems (ELEC 165), or permission of instructor.

ELEC 171 ELECTRICAL CONSTRUCTION AND MAINTENANCE I *Fall, 7 credit hours*

Instruction includes fundamentals of AC and

DC circuits, magnetism, DC motors and generators, use of electrical test instruments and the National Electric Code. Laboratory projects include cable, conduit and surface raceway wiring installations plus projects related to the theoretical concepts listed above. CERTIFICATE/A.A.S. ELECTIVE CREDIT ONLY. Three hours lecture, eight hours laboratory per week.

ELEC 172 ELECTRICAL CONSTRUCTION AND MAINTENANCE II *Spring, 7 credit hours*

Continuation of Electrical Construction and Maintenance I. Includes additional instruction in basic AC system theory, three phase circuits, motors and motor control, transformer theory and connections. Laboratory projects include diagnosis and repair of electrical equipment including major appliances, motors and motor starters, and transformer connections. CERTIFICATE/A.A.S. ELECTIVE CREDIT ONLY. Three hours lecture, eight hours laboratory per week. Prerequisite: Electrical Construction and Maintenance I (ELEC 171).

ELEC 173 INTRODUCTION TO THE ELECTRICAL CODE *Fall, 1 credit hour*

This introductory course will cover the basics of understanding the current national electrical code. Topics will include box and wire sizing, conduit calculation, service entrance design and installation requirements. Three hours lecture per week for five weeks.

ELEC 174 ELECTRICIAN'S HAND TOOLS *Fall, 1 credit hour*

A hands-on study of the use of hand tools in the installation of electric entrances and electric equipment installation. The identification and use of tools for electric installation will be studied. This course is designed to meet the St. Lawrence County Apprentice Program needs. One hour lecture per week.

ELEC 181 COMPUTER MAINTENANCE TECHNICIAN I *Fall, 3 credit hours*

This course introduces students to a brief theory of operations, installation and operation instructions, and testing and diagnostic procedures for personal computers and peripheral hardware including CD-ROM drives, sound cards, scanners, hard drive, motherboards and memory modules. This material is suitable for both new computer owners and experienced technicians. Laboratory experience includes setting, interfacing, testing, diagnosing, and analyzing personal computer equipment to arrive at a repair or replace decision. Two hours lecture, two hours laboratory per week. Corequisite: Introduction to Basic Electricity (ELEC 100) or permission of instructor.

ELEC 182 COMPUTER MAINTENANCE TECHNICIAN II *Spring, 3 credit hours*

This course, a continuation of ELEC 181, introduces students to preventive maintenance techniques for maximizing personal computer performance,

Course Descriptions: ELECTRICAL

troubleshooting board components, storage devices, communication hardware and workgroup networks, and diagnosing operating systems conflicts and failures. Laboratory experience includes troubleshooting and diagnosing components, printer maintenance, network components and systems, and building a functioning computer system from components. Two hours lecture, two hours laboratory per week.

ELEC 184

PC AND NETWORK INTERNSHIP

Spring, 2 credit hours

This is the required internship phase of the PC & Network Support Technician program. Students shall receive on-the-job training in many facets of the workplace including interpersonal relations, group problem solving as well as the more traditional technical training specific to each site. Hours vary by internship, but will total at least 80 hours scheduled on individual student basis. Prerequisite: Computer Maintenance Technician I (ELEC 181) or permission of instructor.

ELEC 189

COMPUTER HARDWARE MAINTENANCE LABORATORY

Fall/Spring, 3 credit hours

A hands-on course designed to train the student in several important aspects of computer maintenance. Software and hardware installation, use and troubleshooting will be explored and practiced by the student. A local area network will be set up in the laboratory. Three hours laboratory per week. Corequisite: Computer Maintenance Technician I (ELEC 181) or permission of instructor.

ELEC 201

ELECTRICAL DRAFTING

Fall, 2 credit hour

The study and practice of drawing standard electrical and electronic symbols, connection diagrams (point to point, highway, base-line); logic diagrams; schematic diagrams; elementary diagrams for industrial control circuits; and one-line diagrams. Introduction to computer drafting (AutoCAD). Four hours laboratory per week. Prerequisites: Industrial Controls (ELEC 141) or permission of instructor.

ELEC 202

ELECTRICAL DESIGN

Spring, 1 credit hour

The continued study of proper drafting techniques. Projects include: substation conduit, grounding, layout plans; elementary power and control diagrams; engineering design problems with attendant use of handbooks and reference materials; and design consideration for safety, environmental and legal issues. Continued use of CAD. Three hours laboratory per week. Prerequisite: Electrical Drafting (ELEC 201) or permission of instructor.

ELEC 203

ENGINEERING TECHNOLOGY PROJECT

Fall, 1 credit hour

Senior project (capstone) course that gives the student an opportunity to think, design, construct, and present a finished product based on knowledge/experience from previous or current courses such as electronic circuits, telecommunications, microproces-

sors, and industrial controls. Each team is expected to do a classroom presentation on the final project. Examples of design project: High Power Emergency Power Supply (Alternative Energy), Industrial Monitoring System (using sensing devices), and Electronics/Communication Systems. All project proposals must be approved by course instructor. Three hours laboratory per week. Prerequisites: Electrical Energy Conversion (ELEC 215), Industrial Controls (ELEC 141), Electronic Circuits (ELEC 231), or permission of instructor.

ELEC 212

DIGITAL SYSTEMS

Spring, 2 credit hours

Formulation of logical expressions and their simplifications with the use of mapping is presented. Sequential logic circuits and the applications are studied. These include Flip-Flops, Digital Counters, Registers, Latches, Adders, Decoders and Encoders, Multiplexers and Demultiplexers, and Seven Segment Readouts. Semiconductor memories (Eproms, Earoms, and Prom and Drams, etc.) are studied along with application to microprocessors. Comparison of modern logic families used for integrated circuit fabrication. Analog to digital and digital to analog converters are also presented. Two hours lecture per week. Prerequisites: Digital Circuits (ELEC 111) and College Algebra (MATH121) or permission of instructor.

ELEC 213

MICROPROCESSORS

Spring, 3 credit hours

The 8085 8-bit microprocessor instruction set and the internal hardware register structure are studied. The basic operations of the Fetch and Execute operations are examined. The student will generate several machine programs for interfacing input and output devices to the microprocessor. The PIC micro family or the STAMP family microcontrollers will be introduced to provide the student with hardware and software experience in working with these devices. The student will use a cross-assembler to generate the software programs to be written for the microcontrollers. The RS-232C Serial data transmission interface is also studied. A writing intensive course. Two hours lecture, three hours laboratory per week. Prerequisite: Digital Systems and Laboratory (ELEC 212/219) or permission of instructor.

ELEC 215

ELECTRICAL ENERGY CONVERSION

Fall, 4 credit hours

The study of construction and operation of direct current generators and motors. The principles of operation of three-phase induction motors and alternating current generators are presented. Topics also include synchronous motor and single-phase motor principles and operation. Single-phase/three-phase transformer theory and circuit interrupting devices are also covered. Basic power transmission line circuit concepts and alternative (Green) electrical power generation methods are also investigated. Hands-on laboratory experiments are performed to reinforce the theory for each of the covered topics. Three hours lecture and three hours laboratory per week. Prerequisites: Electric Circuits 2 and Laboratory (ELEC 102/129) or permission of instructor.

ELEC 219

DIGITAL SYSTEMS LABORATORY

Spring, 1 credit hour

Formulation of logical expressions and their simplifications with the use of mapping is presented. Sequential logic circuits and the applications are studied. These include Flip-Flops, Digital Counters, Registers, Latches, Adders, Decoders and Encoders, Multiplexers and Demultiplexers, and Seven Segment Readouts. Semiconductor memories (Eproms, Earoms, and Prom and Drams, etc.) are studied along with application to microprocessors. Comparison of modern logic families used for integrated circuit fabrication. Analog to digital and digital to analog converters are also presented. Two hours laboratory per week. Prerequisite: Digital Circuits (ELEC 111) and College Algebra (MATH121) or permission of instructor.

ELEC 221

ELECTRICAL ENERGY CONVERSION AND POWER SYSTEMS 1

Fall, 3 credit hours

The study of the theory, construction and operation of direct current generators and motors with laboratory experiments to reinforce the theory. The principles of operation of three-phase inductions motors are presented. Single-phase and three-phase transformer operations are also covered. Two hours lecture and three hours laboratory per week. Prerequisites: Electric Circuits 2 (ELEC 102) or permission of instructor.

ELEC 222

ELECTRICAL ENERGY CONVERSION AND POWER SYSTEMS 2

Spring, 4 credit hours

The principles of operation of induction motors and alternating current generators are presented. Topics also include synchronous motors, single-phase motor principles and operation, and circuit interrupting devices. Basic power transmission line circuit concepts are also investigated. Hands-on laboratory experiments are performed to reinforce the theory for the covered topics. Three hours lecture and three hour laboratory per week. Prerequisites: Electrical Energy Conversion and Power Systems 1 (ELEC 221) or permission of instructor.

ELEC 225

TELECOMMUNICATIONS

Spring, 3 credit hours

An intermediate course designed to give students theoretical and hands-on experience in telecommunications technology. Topics include how information is processed and transmitted, medium of transmission, Switching Hierarchy of North America (PSTN), wave propagation, line devices, Modulations, Multiplexing, Noise, Error detection, correction, and control, Transmission lines, ISDN/DSL and Antennas. Three hours lecture and two hours laboratory per week. Prerequisite: Electronic Circuits (ELEC 231) or permission of instructor.

ELEC 231

ELECTRONIC CIRCUITS

Fall, 4 credit hours

Basic theory and circuit applications of silicon, germanium, zener, light emitting (LED) and Schottky diodes, bipolar and field effect transistors (FET) are

Course Descriptions: ELECTRICAL

presented. The student is introduced to half-wave and full-wave DC power supplies and associated ripple filters. Zener and Active Voltage Regulators circuits are studied. The basic operation of Metal Oxide; Semiconductor Field Effect Transistors (MOSFET) is also presented. Basic types of bi-polar transistor AC amplifiers (CE, CB, CC) and their FET counterparts are discussed. Three hours lecture and three hours lab per week. Prerequisites: Electric Circuits 1 and Laboratory (ELEC 101/109), Electric Circuits 2 and Laboratory (ELEC 102/129) or permission of instructor.

ELEC 232 **INDUSTRIAL ELECTRONICS** *Fall, 4 credit hours*

The student is introduced to various electronic components and systems used in modern industry. Operational amplifier principles and applications including comparators (zero and non-zero crossing detectors), voltage followers, inverting and non-inverting amplifiers. Subtraction, summing (mixer), difference and compound amplifiers and active filters. Operational amplifier circuits are configured to make up complex analog circuits. Examples of these include the temperature controller and the pulse width modulation technique of DC motor speed control. The importance of digital computers used in modern industrial processes is stressed. Thyristors, photosensitive devices, optically coupled devices, and timer control circuits and various transducers are introduced. Three hours lecture, three hours laboratory per week. Prerequisite: Electronic Circuits (ELEC 231) or permission of instructor.

ELEC 233 **WIRELESS ELECTRONICS** *Fall, 5 credit hours*

The study of analog and digital communication principles involving amplitude and frequency modulation and detection. Topics including active and switching DC regulators, common base, collector and emitter small signal amplifiers and their FET counterparts, Class A, B, C Power Amplifiers. Crystal oscillators, AM and FM transmitter design, superheterodyne receivers, phase locked loop applications, frequency synthesizers, and digital processing techniques are also presented. Basic troubleshooting techniques are stressed in all of the laboratory work. Four hours lecture, three hours laboratory per week. Prerequisite: Wireless Communications II (ELEC 152) or permission of instructor.

ELEC 235 **TELECOMMUNICATIONS I (VERIZON PROGRAM)** *Fall, 4 credit hours*

The organization, architecture, setup, maintenance, hardware and software aspects of local area networks. Topics include: introduction to networks; types and characteristics of different network architectures and network topologies; intra and inter-network devices; network operating systems; peer-to-peer and client/server environments; LAN setup and maintenance, network printing; and internal web server. Four hours lecture per week. Prerequisites/corequisites: Telecommunications Electrical Circuits (ELEC 145) and Digital System for Telecommunications II (ELEC 126), Electronic Systems for Telecommunications I (ELEC 146) or permission of instructor.

ELEC 236 **TELECOMMUNICATIONS II (VERIZON PROGRAM)**

Spring, 4 credit hours

This course will cover the basics of Voice over Internet Protocol (VoIP) systems. Topics include: an overview of TCP/IP networks with a focus on VoIP; an introduction to VoIP; Quality of Service (QoS); VoIP system components; VoIP protocols and VoIP protocol analysis, VoIP architecture and VoIP codecs. Four hours lecture per week. Prerequisite/co-requisites: Telecommunications I (ELEC 235) and Digital System for Telecommunications II (ELEC 126), Electronic Systems for Telecommunications II (ELEC 255) or permission of instructor.

ELEC 237 **TELECOMMUNICATIONS III (VERIZON PROGRAM)**

Fall, 4 credit hours

The organization, architecture, setup, hardware and software aspects of networked video delivery systems. Topics include: Video transport; compression; packet transport; multicasting; Content Ownership and Security; Transport security; IPTV-IP Video to the Home; Video File Transfer; VPN's and Home-Office video links. A hands-on approach will be taken, with team projects throughout. Three hours lecture, two hours laboratory per week. Prerequisite: Telecommunications II (ELEC 236) or permission of instructor.

ELEC 238 **TELECOMMUNICATIONS IV (VERIZON PROGRAM)**

Spring, 4 credit hours

A survey of current and emerging technologies in Telecommunications will be presented. Topics covered will include: audio/video systems, security and surveillance, residential systems integration, business system integration, and integration of home and small business. Four hours lecture per week. Prerequisite: Telecommunications III (ELEC 237) or permission of instructor.

ELEC 242 **INTRODUCTION TO COMPUTER AUTOMATION PROGRAMMING**

Fall, 2 credit hours

An introduction to some of the control software systems in use in industry. The student is introduced to the C language to the extent that various control functions can be identified and modified. Memory mapped I/O and the relationship of memory location and hardware I/O are introduced. One hour lecture, two hours laboratory per week. Prerequisite: Industrial Controls (ELEC 141) or permission of instructor.

ELEC 243 **COMPUTER-AUTOMATED CONTROL SYSTEMS**

Spring, 2 credit hours

An introduction to some of the control software systems in use in industry. The student is introduced to structured PIC 16f877 micro family programs to the extent that various control functions can be identified and modified. Memory addressed I/O and the relationship of memory location access (analog and digital) by a PIC microcontroller program. Several computer interfaces and motor-control circuits includ-

ing stepper motor interfaces are studied. One hour lecture, three hours laboratory per week. Prerequisites: Electronic Circuits (ELEC 231), Industrial Controls (ELEC 141), Microprocessors (ELEC 213) or permission of instructor.

ELEC 253 **WIRELESS COMMUNICATIONS III** *Fall, 3 credit hours*

The third course in the Wireless Communication sequence. Topics include: applicable FCC rules and regulations pertaining to land mobile radio services, operational amplifiers and their applications, digital communication techniques, digital testing techniques, and various digital modulation schemes. Two hours lecture, two hours laboratory per week. Prerequisite: Wireless Communication II (ELEC 152) or permission of instructor.

ELEC 254 **WIRELESS COMMUNICATIONS IV** *Spring, 4 credit hours*

The fourth course in the Wireless Communication sequence. Topics explored include paging systems, two-way mobile repeater systems, spread spectrum techniques, troubleshooting radio signal interference problems, personal communication Networks, and military applications in high frequency and VHF bands. The basic operation of the cellular telephone system and microwave transmission systems including active microwave devices are also presented. Basic troubleshooting techniques are stressed in all of the laboratory work. Three hours lecture, two hours laboratory per week. Prerequisites: Wireless Communications III (ELEC 253) and Wireless Electronics (ELEC 233) or permission of instructor.

ELEC 255 **ELECTRONIC COMMUNICATION (VERIZON PROGRAM)** *Fall/Spring, 4 credit hours*

Students practice the analysis and application of advanced electronic circuits as applied to the telecommunications industry. Topics include: frequency response of active filters, oscillators; amplitude modulation, frequency modulation, phase locked loops; pulse modulation concepts and introduction to television; theoretical and hands-on troubleshooting of test circuits; and analysis by computer simulation. Four hours lecture per week. Prerequisite/corequisite: Introduction to Electronics (ELEC 146) or permission of instructor.

ELEC 261 **ELECTRICITY** *Fall, 4 credit hours*

Fundamentals of direct and alternating current circuits, resistance, inductance, capacitance, magnetism are presented. Also basic machine theory as it applies to both direct and alternating current types is covered. The theory of control devices such as relays, contactors and switches is studied. Also, basic number systems and digital logic functions are introduced. Three hours lecture, three hours laboratory per week. Prerequisite: College Algebra (MATH 121) or permission of instructor.

Course Descriptions: ELECTRICAL

ELEC 263 **ELECTRIC CIRCUITS** *Spring, 3 credit hours*

Electric circuit theory is introduced with emphasis on mathematical definitions of circuit elements. Network analysis techniques are presented within the framework of direct and alternating current theory. Transient forced and complete responses of circuits involving resistance, inductance and capacitance are analyzed via differential and integral calculus. Three hours lecture per week. Prerequisites: Calculus II (MATH 162), University Physics II (PHYS 132), or permission of instructor.

ELEC 281 **WIRELESS COMMUNICATIONS FIELD APPLICATIONS** *Spring, 2 credit hours*

A laboratory course in which the wireless communication student will be required to perform practical skills which provide the student with confidence that he can graduate from the College and start working with a minimum of additional training by his employer. These practical skills which he will master include installation of mobile transceivers and antennas on vehicles, repairing portable and mobile transceivers, performing required FCC tests on transceivers, installation of encoder/decoders and encryption circuits in transceivers. Four hours laboratory per week. Prerequisites: Wireless Communications III (ELEC 253) and Wireless Electronics (ELEC 233) or permission of instructor.

ELEC 286 **WIRELESS COMMUNICATIONS TECHNOLOGY INTERNSHIP** *Summer, 3 credit hours*

Students will receive on-the-job training in many facets of the wireless communications industry. These may include interpersonal relations and group problem solving as well as the more traditional technical training specific to each co-op site. 120-135 hours of supervised experiential work between second and third semesters (or as arranged with employer). Prerequisite: Satisfactory completion of first and second semesters or permission of instructor.

ELEC 324 **ADVANCED AUTOMATED CONTROLS** *Fall, 2 credit hours*

This course uses the latest industrial software system to control motors and machines. Topics covered include: Resistive Sensors, Servomotors, AC Appliances, PIC16f877/ 18 family, Stepper Motors, and other memory and electronics devices. Note: Credit is given to a student who has taken ELEC 243 with a (C) grade or better. One hour lecture, two hours laboratory per week. Prerequisites: Electronic Circuits (ELEC 131), Industrial Controls (ELEC 141), Microprocessors (ELEC 213), or permission of instructor.

ELEC 332 **INDUSTRIAL POWER ELECTRONICS** *Fall, 3 credit hours*

This course is designed to prepare students with industrial electronics skills necessary to function as technologist. Topics include: Solid States Devices, Photo-Electronics, Inverters, Power Supplies, Operational Amplifiers, Open/Closed Loop Feedback

Systems, SCRs, TRIACs, Thyristors, Photosensitive devices, Optically Coupled Devices, Timer Control Circuits, Motor Control Devices, and Process Control Devices. Note: Credit is given to a student who has taken ELEC232 with a (C) grade or better. Two hours lecture, two hours laboratory per week. Prerequisites: Electronic Circuits (ELEC 231) or permission of instructor.

ELEC 343 **ADVANCED CIRCUIT ANALYSIS** *Spring, 3 credit hours*

An advanced course designed to give students upper level circuit analysis experience. Topics include: Resistive Circuits, Nodal and Loop Analysis, Two-Port Networks, Application of Laplace Transform, Variable-Frequency Network Performance, Polyphase Circuits, and AC Steady-State Analysis. Three hours of lecture per week. Prerequisites: Electric Circuits 2 and Laboratory (ELEC 102/129), Differential Equations (MATH 261) or permission of instructor.

ELEC 375 **FIBER OPTIC COMMUNICATIONS** *Spring/Fall, 3 credit hours*

This course focuses on the transmission of information using fiber optics technologies. Topics include: Optical Fiber, Amplifiers, Transmitters, Receivers, Transceivers, Detectors, Modulation, Multiplexing, Optical Networks, Optical Sources and De-modulation. Two hours lecture, two hours laboratory per week. Prerequisites: Electronic Circuits (ELEC 231) or permission of instructor.

ELEC 380 **LAN/WAN TECHNOLOGY** *Spring, 3 credit hours*

This course will cover topics include: Network topologies and connectivity devices, TCP/IP protocol suite and internet protocol addressing, networks and sub-networks, network-layer protocols, internet control message protocol, transport layer protocol, internet protocol version 6, configuration and domain name protocols, and Integrated Services Data Networks (ISDN). Two hours lecture, two hours laboratory per week. Prerequisites: Telecommunications (ELEC 225) or permission of instructor.

ELEC 383 **POWER TRANSMISSION AND DISTRIBUTIONS** *Spring, 3 credit hours*

This course in electrical power generation and transmission will emphasis on those aspects that concern engineers and technologists in the performance of their tasks. Topics covered include: Hydropower, Thermal, Nuclear, and Wind Power Generating Stations, Transmission and Distribution of Electrical Energy, Direct Current Transmission, HVDC Light Transmission System, Power Stability, and Cost of Electricity. Two hours lecture, two hours laboratory per week. Prerequisites: Electrical Energy Conversion (ELEC 215) or permission of instructor.

ELEC 385 **ELECTRONIC COMMUNICATIONS I** *Spring, 3 credit hours*

The first of a two series of courses to prepare students for modern telecommunications industry.

Topics covered include: Noise, Transmission Lines, Wave Propagations, Error Checking, Communication Transmitters/Receivers, Coding Techniques, and Computer Communications. Two hours lecture, two hours laboratory per week. Prerequisites: Telecommunications (ELEC 225) or permission of instructor.

ELEC 386 **ELECTRONIC COMMUNICATIONS II** *Fall, 3 credit hours*

This course is the continuation of Electronic Communications (I), and is designed to prepare students for modern telecommunications industry. Topics include: Wireless digital communications, Optical communications, Cell phone communications, CDMA, OAS, Wireless technologies, Microwave and lasers, Antennas, and Waveguide and Radar. Two hours lecture, two hours laboratory per week. Prerequisites: Electronic Communications I (ELEC 385) or permission of instructor.

ELEC 405 **SATELLITE COMMUNICATIONS** *Fall/Spring, 3 credit hours*

This course will emphasize on hardware and the basic operating techniques of every major supporting subsystem, the reliability analysis that allow satellites to operate for years without maintenance. Topics include: Propulsion, Structure, Thermal control, Reliability, Spacecraft testing, Spacecraft attitude, System performance, Telemetry, Tracking, and Command. Three hours lecture per week. Prerequisites: Electronic Communications I (ELEC 385) or permission of instructor.

ELEC 407 **ELECTRICAL & TELECOMMUNICATION SYSTEMS** *Spring, 3 credit hours*

Electrical power, telecommunications, and distribution systems as found in building complexes and facilities are studied. Transmission diagrams, line equivalence, faults, circuit interceptive devices, protective relays and instrumentation are all topics covered. Ladder diagrams are studied as part of the equipment power connection requirements. The National Electric will be used as a requirement in this course. Additional topics to be covered include: single and three phase power, telecommunication switch gear, power and LAN wiring, transformers, variable frequency drives, motors and controls. Three hours lecture per week. Prerequisites: Basic Calculus (Math 122) and General Physics II (PHYS 102) or permission of instructor.

ELEC 416 **MICROELECTRONICS CIRCUIT DESIGN** *Fall, 3 credit hours*

This course will analyze analog electronic circuits, digital electronic circuits, and the foundations of electronic circuit design. Topics covered include: Operational amplifier circuit design, Integrated circuit biasing and active loads, Differential and multistage amplifiers, Feedback and stability, Operational Amplifier Circuits, Nonideal Effects in Operational Amplifier circuits, and Applications and design of integrated circuits. Laboratory exercises required [Selected design projects]. Two hours lecture, two hours laboratory per week. Prerequisites: Industrial Power Electronics (ELEC 332), Electronic Circuits (ELEC 231), or permission of instructor.

Course Descriptions: ELECTRICAL, ENGLISH

ELEC 436 BIOMEDICAL ELECTRONICS *Spring, 3 credit hours*

This course is designed to give students theoretical and hands-on experience in biomedical instrumentation and measurement. Topics covered include: Medical Instrument Transducers, Bio-potential Amplifiers, The pacemaker, Ultrasonic Equipment, Central Station Monitor, Electroencephalograph and Filtering, Electrosurgical Units and Laser Surgery, and Catheters and Blood Pressure Monitoring Devices. Two hours lecture, two hours laboratory per week. Prerequisites: Microelectronics Circuit Design (ELEC 416), Calculus II (MATH 162), or permission of instructor.

ELEC 477 CAPSTONE PROJECT *Spring, 3 credit hours*

A learning experience by allowing students to propose, design and implement a project. This could be a study of a problem and solution of specific equipment, new product design, improvement of an existing product, and etc. All projects must be approved by course faculty. Independent Project. Prerequisites: Completion of seven semesters coursework or permission of instructor.

ELEC 292-295, 391-395, OR 491-495 SPECIAL TOPICS IN ELECTRICAL TECHNOLOGY *Fall/Spring, 1-4 credit hours*

Special Topics in Electrical Technology will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available.

ENGL 097 INTRODUCTION TO ACADEMIC READING AND WRITING *Fall/Spring, 4 equivalent credits*

This course will focus on the development of reading and writing skills which are necessary for comprehending academic material. The reading component requires the student to pursue vocabulary development, recognize main ideas, topics and supporting details, identify organizational patterns, organize material using mapping and outlining strategies and apply skills in a variety of reading/writing experiences (i.e. literary, technical, scientific). The writing component of the course will focus on grammatical proficiency as demonstrated in summary, comparison/contrast, and definition paragraphs, and by developing thesis statements, and writing short, well-developed papers in which arguments are made and defended. The course is competency based and will develop reading and writing strategies which are essential for academic success. Additional tutorials may be required. Four hours lecture per week. Not open to students who have passed a college-level literature and writing course.

ENGL 098 BASIC WRITING *Fall/Spring, 3 equivalent credits*

This course is competency based and will focus on the development of writing skills which are necessary for academic success, including: developing thesis statements, using specific supporting information, organizing ideas, and demonstrating grammatical

proficiency. Written work will be in paragraphs and short compositions (as demonstrated in summary, comparison/contrast, definition, and argument/persuasion papers). Additional tutorials may be required. Three hours lecture per week.

ENGL 101 EXPOSITORY WRITING *Fall/Spring, 3 credit hours*

GER 10

Expository Writing is designed to help the student communicate more effectively through writing various forms of expository prose; i.e. nonfiction writing that informs. These skills will be taught: gathering information, organizing information, recognizing audience and adapting information to specific audiences, and editing and rewriting techniques. Also included are an orientation to the College library and an introduction to basic research skills. This course is an alternate to Oral and Written Expression (ENGL 102). Students cannot take both. Classes are sometimes conducted in individualized and self-paced tutorial sessions. Three hours lecture per week.

ENGL 102 ORAL AND WRITTEN EXPRESSION *Fall/Spring, 3 credits*

GER 10

This course is intended to help students develop more effective skills in speaking and writing and will serve the needs of students in curriculum areas where such well-developed skills are required. The speech component is meant to make the student aware of the many elements common to both speech and writing and to provide students with an opportunity to present written ideas orally. By the end of the term, students will be proficient in the following areas: gathering information (including library research), organizing information, recognizing audience and adapting information to specific audiences, as well as writing, editing, and rewriting techniques. Students will be required to demonstrate proficiency in writing and in speaking before an appropriate audience. This course is an alternate to Expository Writing (ENGL 101); students cannot take both. The course fulfills the college's writing requirement. Three hours lecture per week.

ENGL 202 CREATIVE NON-FICTION *Fall/Spring, 3 credits*

This course will provide opportunities for the student to continue developing and refining skills in writing from the basics of Expository Writing or Oral and Written Expression. Through their study of creative non-fiction forms—memoirs, nature writing, lyrical essays, magazine features, webpage content, etc.—students will learn to write essays that are not only persuasive but enjoyable. Each student will design writing situations according to interests and will develop imaginative essays of creative nonfiction. A liberal arts writing intensive course. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) OR Oral and Written Expression (ENGL 102) OR an equivalent course OR permission of instructor.

ENGL 203 WORLD LITERATURE: B.C. TO 16TH CENTURY *Fall, 3 credit hours*

GER 7

This course examines works of recognized value

reflecting human thought and experience prior to the Neo-Classical period. Significant works from the Ancient Western World, including selections from Mid-Eastern writings; the Bible; and the history, literature, philosophy and religion of the Greek and Roman worlds through the Middle Ages and the Renaissance form the basic readings of this course. Three hours lecture per week.

ENGL 204 WORLD LITERATURE: 17TH TO 20TH CENTURIES

Spring, 3 credit hours

GER 7

This course examines works of recognized value by tracing literary traditions which show the development of human values and thought in Neoclassicism, Romanticism, Naturalism, Symbolism, and Existentialism. Three hours lecture per week.

ENGL 205 SURVEY OF ENGLISH LITERATURE I *Fall, 3 credit hours*

GER 7

This is a survey course which will begin with the study of old English literature from 450 AD through 1800 AD. Students will study the important writers, their representative works, the historical, social, and political background for each period and the cultural changes and developments of the eras. Three hours lecture per week.

ENGL 206 SURVEY OF ENGLISH LITERATURE II *Spring, 3 credit hours*

GER 7

A study of English literature of the Romantic through Post-Victorian period. Students will study the important writers, their representative works, the historical, social, and political background for each period and the cultural changes and developments. Three hours lecture per week.

ENGL 207 LITERATURE OF THE EARLY AMERICAN REPUBLIC: COLONIZATION AND REVOLUTION, 1640-1830 *Fall, 3 credit hours*

GER 7

This is a survey course which will examine the emergence of a distinctively American literature as it may be seen in significant works of the period from about 1620 to 1840. Students will study important American writers such as Bradford, Franklin, Poe, Hawthorne, Thoreau and others. The historical, social, and political background for each period and the cultural changes and development of the eras will also be examined. Three hours lecture per week.

ENGL 208 AMERICAN LITERATURE COMES OF AGE: 1830-PRESENT *Spring, 3 credit hours*

GER 7

This is a survey course which studies significant American authors from the pre-Civil War era and continues into the present. Students will study important American writers such as Whitman, Dickinson, Twain, Cather, Fitzgerald, Wright, Oates, Carver, and others. The historical, social, and political background for each period and the cultural changes and developments of the eras will also be examined. Three hours lecture per week.

Course Descriptions: ENGLISH

ENGL 209

APPROACHES TO LITERATURE

Fall/Spring, 3 credit hours

GER 7

This course is designed to acquaint students with different kinds of literature—plays, short stories, novels and poems—and with various methods of understanding literature. Students will read a wide variety of literary works and will be encouraged to employ proper literary terminology in writing about them. Emphasis will be on intelligent interpretation and on the relationships between literary themes and everyday life. Three hours lecture per week.

ENGL 211

THE AMERICAN NOVEL OF THE TWENTIETH CENTURY

Fall/Spring, 3 credit hours

GER 7

This course will look at important changes in American attitudes that affected the American way of life in the 20th century as characterized through the eyes of such writers as: Sinclair Lewis, F. Scott Fitzgerald, Ernest Hemingway, John Steinbeck, William Faulkner, Richard Wright, Norman Mailer, Ken Kesey, Toni Morrison and others. In addition to the novels, there will be film, videotape and microfilm resources brought to the course. Three hours lecture per week.

ENGL 213

WAR AND LITERATURE

Fall/Spring, 3 credit hours

GER 7

Focusing on American wars from World War II to the present, this course examines war and a range of human responses to the war experience as reflected through literature. Theories originating in the social sciences and historical information are included to enhance understanding of the literature. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102). Three hours lecture per week.

ENGL 214

CONTEMPORARY AMERICAN FICTION

Fall/Spring, 3 credit hours

GER 7

Through the writings of current authors, this course will examine literary trends and their relationship to social, political, cultural phenomena in America. Students will be given an opportunity—through their own writing and class discussion—to explore contemporary ideas, values, and attitudes expressed in the literature. Three hours lecture per week.

ENGL 215

MULTICULTURALISM IN AMERICAN LITERATURE

Spring, 3 credit hours

GER 7

This course will examine multiculturalism in America as reflected in its literature of the twentieth and twenty-first centuries. Works will be selected to highlight the diversity of American life including, but not limited to, race/ethnicity, gender, social class, sexual orientation, nationality/immigration status, religion, and family structure. Students should increase their understanding of the multicultural nature of our society and the existence of cultural traditions and practices that exist independently of those of the dominant American "mainstream" or overculture. Three hours lecture per week. Prerequisite: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) or permission of the instructor.

ENGL 216

CHILDREN'S LITERATURE

Spring, 3 credit hours

GER 7

This is a survey course of traditional and modern literature written for young children. Emphasis is on critical appreciation and understanding of literary qualities appealing and valuable to children. Three hours lecture per week.

ENGL 217

COMIC BOOKS AS LITERATURE

Fall/Spring, 3 credit hours

GER 7 & GER 8

Comic Books as Literature? Understandably, skeptics may scoff at the idea, viewing comics as merely kids' stuff. However, in recent years, comic books have become accepted as a respected form of art and literature by scholars, critics, and faculty alike. This course will examine the academic value of comics and graphic novels through study of their history, specialized artistic and literary techniques, and development as narratives. Students will be required to learn and apply elements of literature and sequential art as used by noted comic writers and illustrators such as Will Eisner, William Gaines, Scott McCloud, Paul Chadwick, Alan Moore, Art Spiegelman, and Alex Ross. Three hours lecture per week. Prerequisites include Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) AND one literature course or permission of instructor.

ENGL 219

THE ADIRONDACKS: LIFE AND LITERATURE

Fall/Spring, 3 credit hours

This course will provide students with the opportunity to explore various aspects of life and literature set in the Adirondack forest preserve. The Adirondacks, a cultural, recreational, spiritual and intellectual resource, are located in close proximity to SUNY Canton. They beckon us to come and enjoy their many splendors. Through a wide variety of readings, films, slides, and presentations, students will have the opportunity to sharpen their awareness of what the Adirondacks are and how they have shaped and influenced life and literature in America. Three hours lecture per week.

ENGL 221

CREATIVE WRITING

Fall/Spring, 3 credit hours

GER 8

This course is an introduction to the study of imaginative expression in order to teach students the value of communication through creative writing, and also to encourage them to develop an appreciation for literary works of art. Students will write short stories and poetry about topics as unique and diverse as they themselves are in order to reveal new dimensions in their own lives and to bring a sense of dignity and respect to themselves and others. Basic technical problems and formal concepts of creative writing will be covered. Emphasis will be placed upon the writing of poems and short stories, but other forms of creative work may be utilized and discussed. Students will also study works by accomplished writers to see how those writers define and master their craft. A liberal arts writing intensive course. Three hours lecture per week. Prerequisite: Expository Writing (ENGL 101) OR Oral and Written Expression (ENGL 102) AND one literature course OR permission of instructor.

ENGL 224

SURVEY OF NATIVE AMERICAN LITERATURES

Fall/Spring, 3 credit hours

GER 6

Introductory survey of expressive and essayist literature by selected Native American authors from the United States and Canada. Works will be chosen to reflect the diversity of Native American thought and experience as revealed through literature. Emphasis is on contemporary short fiction and poetry, but readings include essays, drama and the novel. Discussion of cultural context encompasses the oral tradition(s) and relevant political and social history. Audio-visual media and Internet resources will supplement lectures and discussions. Three hours lecture per week. Prerequisite: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) or permission of instructor.

ENGL 265

WRITING IN THE HUMANITIES THEMATIC INQUIRY

Fall/Spring, 3 credit hours

GER 7

This course will explore questions about the humanities and will introduce students to several disciplines within humanities. Through writing about a common theme, students will analyze, evaluate, and interpret texts, films, art and/or music that reflects this common theme. Citation and integration of external sources will be expected. This is a writing intensive course for students in Liberal Arts and Sciences: General Studies or for students interested in transferring to a liberal arts program, especially in the humanities. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102); completion of 24 credits towards the major of General Studies; or permission of instructor.

ENGL 301

PROFESSIONAL WRITING AND COMMUNICATION

Fall, 3 credit hours

Professional writing and communication is specialized writing and communication that helps students respond to the challenges of a technical world. In this course, students, as professionals, will analyze needs and concerns for specific workplace situations, organize effective solutions, and prepare and produce the needed directions, reports, manuals, and/or other items, which will then be assessed and evaluated by other students acting as intended users. Students will create, design, and package these documents, selecting appropriate communication technology to accomplish the task, and will then display the technical data in writing and visually, as well as present such information orally when applicable. Students should be familiar with Desktop Publishing. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) and junior level status with a 2.0 GPA; or permission of instructor.

ENGL 303

INTRODUCTION TO INTERCULTURAL STUDIES

Fall, 3 credit hours

GER 7

The USA is, and has always been, composed of diverse racial and cultural groups. This is a strength as well as a source of conflict. Historically, Americans have a rich experience of intercultural encounter

Course Descriptions: ENGLISH

and dialogue. The course will examine some of the evolution of this discourse through literature, film, and theory. Students will be encouraged to locate their own cultural positions in the context of global and multicultural trends. There will be a critical and philosophical analysis of assumptions about identity, culture, ethnicity, history, and pluralism. The class research project, which includes library research and interviews, will explore and analyze the attitudes of various subcultures toward identity and difference. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) and one literature course or permission of instructor.

ENGL 305 PERPETRATORS & VICTIMS: CRIME AND VIOLENCE IN LITERATURE *Fall/Spring, 3 credit hours*

In this course, through the study of various forms of literary expression, students will examine the impact of crime and violence in American culture. Analysis will focus on both perpetrators and victims of crime and violence, allowing students the opportunity to explore the influence of such happenings on their own lives and on the society we live in today. Particular sub-topics include true crime, the criminal mentality and youth, crime and individuals, and crime and society. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), one literature course, and 30 credit hours earned with a cumulative GPA of 2.0, or permission of instructor.

ENGL 309 JOURNALISM *Fall/Spring, 3 credit hours*

The first half of this course will provide a general study of journalistic principles and practice in gathering and writing news. The second half will explore feature writing, with an emphasis on longer, research-based issues writing and interview techniques. Students in this course will cooperate in the publication of the SUNY Canton Tribune. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) and junior level status or permission of the instructor.

ENGL 310 WRITING YOUR LIFE: FORM & FUNCTION IN MEMOIRS *Fall/Spring, 3 credit hours* **GER 8**

Memoirs are an author's commentary on his or her life, experiences, and the times he or she lives in. Writers record important events based upon their own observations and knowledge of events and/or personalities that they feel have significantly influenced their lives. In this writing intensive course, students will study a variety of literary forms within the memoir genre, and they will create memoirs of different forms from their own life experiences. Students will recognize that both concrete details and abstract ideas in memoirs represent universal truths and will create poems and stories that reflect both. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), one literature course, and 30 credit hours earned with a cumulative GPA of 2.0, or permission of instructor.

ENGL 315 SHORT FICTION: THE ART OF THE TALE *Fall/Spring, 3 credit hours* **GER 8**

In this course, students will explore the short story genre by reading selections from various writers around the world in order to gain perspective on both the literary form of the short story and the myriad of ideas expressed within that form. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) OR Oral and Written Expression (ENGL 102) AND one literature course AND 30 credit hours earned with a cumulative GPA of 2.0 or permission of instructor.

ENGL 317 WORLD POETRY *Fall/Spring, 3 credit hours* **GER 6**

This course explores the vast wealth of non-Western poetry. We draw from the historical canon of writings, but we have distinctly modern concerns in this class; our wide reading helps us understand divergent (and poetic) cultural issues, such as Japanese anime cartoons, Islamic world views, global hip hop and graffiti, and post-colonial literature. While all our readings will be in English, our consideration of the linguistic and political concerns of translation allows us to analyze the dynamic interchange between local cultures and globalization. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) OR Oral and Written Expression (ENGL 102), and one lower-level literature course, or permission of instructor.

ENGL 320 NATIVE AMERICAN AUTOBIOGRAPHY *Fall/Spring 3 credit hours* **GER 6**

This course is a survey of the means by which Native American people have recorded their lives. Texts will be selected from pre-contact pictorial and oral auto-biographical narratives through contemporary written texts, film, and electronic media. Historical context will be provided in lecture. Emphasis is on works published since 1980. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) OR Oral and Written Expression (ENGL 102) AND one literature course AND Native American Literature (ENGL 224) OR Early American History (HIST 103) AND 30 credit hours earned with a cumulative GPA of 2.0 OR permission of instructor.

ENGL 325 CONTEMPORARY YOUNG ADULT LITERATURE *Fall/Spring, 3 credit hours*

In this course, students will explore contemporary young adult novels as a genre of literature worthy of study in its own right. To accomplish this, they will examine its historical development, current trends, and enduring characteristics, as well as its influence on readers. As they analyze the works and various critical perspectives, they will formulate their own definition of the genre and see where the form stands both in relation to contemporary adult literature and in relation to recognized elements common to all literary study. In addition, particular themes to be covered include the "new realism" of life and problems; the "old romanticism" of wishing and winning; adventures, mysteries, the supernatural, and humor; fantasy, science fiction, utopias, and dystopias; and the people and places of history including novels about

racism and the Holocaust. In the end of the study, by experiencing a young adult fictive world, students will illuminate, gain insight into, and confirm our own life experiences without regard to age restrictions or preconceived notions about the genre of young adult literature. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), one literature course, and 30 credit hours earned with a cumulative GPA of 2.0, or permission of instructor.

ENGL 330 WOMEN IN LITERATURE *Fall/Spring, 3 credit hours*

This course will examine women in literature through a variety of literary works and genres. Students may explore such themes as female archetypes and stereotypes; the cultural alienation of women of color; female identity in contemporary culture; or other themes pertinent to the female human experience. Students will enrich their understanding of literature and the roles and experiences of women in shaping such literature. Students may read from works and genres of literature as diverse as the Bible, Greek drama, The Canterbury Tales, Romantic and Victorian poetry, and the contemporary novel. Three hours lecture per week. Prerequisite: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), Introduction to Women's Studies (WMST 201) or one literature course or permission of instructor.

ENGL 333 HIP HOP, JAZZ, AND CLASSICAL MUSIC: INFLUENCES IN LITERATURE AND ART *Fall/Spring, 3 credit hours* **GER 5**

This course will explore musical influences on the literature and art of Western Civilization. Students will study issues such as these: the African American traditions of Blues, Jazz, and Hip Hop as source material for European literature; classical music's influence on formal structures in architecture, poetry, and painting; cinematic antecedents in the work of musicians from Beethoven to the Beatles. Utilizing texts and recordings, we will focus on the influence that musicians and specific musical and linguistic rhythms have had on our written and visual traditions in the West—and how those traditions have spread globally. We will also read critical theories of linguistics, identity, and the arts. While grounded in the historical, our study will progress to the contemporary period to analyze both the music and the literature and art of the present generation. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), one lower-level literature course, or permission of the instructor.

ENGL 335 CONTEMPORARY THEATER LAB *Fall/Spring, 4 credit hours* **GER 8**

This course will examine theatrical texts of the eighteenth-century to the twenty-first century through the medium of non-naturalistic performance. Students will read several plays, critical works and engage in an acting lab which will culminate in a workshop of a play. Three hours lab per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), at least one literature course, and at least 30 credit hours, or permission of the instructor.

Course Descriptions: ENGLISH, ENGINEERING, ENVIRONMENTAL SCIENCE

ENGL 340 LEADERSHIP & THE HUMANITIES

Fall/Spring, 3 credit hours

This course is designed to provide emerging and existing leaders the opportunity to explore the concept of leadership and to develop and improve their leadership skills through examination and exploration of the humanities. Students will gain an understanding of the concept of leadership theory while developing a personal philosophy of leadership, including an awareness of the moral and ethical responsibilities of leadership. The course integrates readings from the humanities, experiential exercises, films, and contemporary readings on leadership, which provides students with the opportunity to develop essential leadership skills through study, observation, and application. Three hours lecture per week. Prerequisite: Expository Writing (ENGL 101), or Oral and Written Expression (ENGL 102), and one literature course with grades of "C" or better and 30 credit hours earned, or permission of the instructor. Due to the interdisciplinary nature of his course, it is strongly recommended that students have a cumulative GPA of 2.0 or better.

ENGL 405 NOTABLE AUTHORS

Fall/Spring, 3 credit hours

In this seminar course students will examine the works of a specific author, such as Joyce Carol Oates, William Faulkner, John Irving, Ernest Hemingway, Anne Tyler, and Toni Morrison. Authors will vary from semester to semester and will be announced when master schedules are available. Students may take this course more than once as content/themes change. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), one literature course, and 30 credit hours earned with a cumulative GPA of 2.0, or permission of the instructor.

ENGL 291-295, 391-395 OR 491-495 SPECIAL TOPICS IN ENGLISH

Fall/Spring, 1-4 credit hours

Special Topics in English will fulfill the general English component of the distribution requirement of the College. It may be repeated for credit depending on the content of the course. It is not a course offered on a regular basis within the department. The intent of a special topics course is to offer an educational experience which is topical, not available within the regular curricular offerings, and may even be offered interdepartmentally depending on the nature of the course.

ENGS 100 INTRODUCTION TO ENGINEERING CAREERS

Fall/Spring, 3 credit hours

Introduction to Engineering Careers is an introductory course in at least six engineering disciplines. Topics include specific subject matter, educational requirements and typical job experiences in the various disciplines (ceramic, chemical, civil, computer, electrical and mechanical). The course will include guest speakers, projects and work-related skill building. Three hours lecture per week.

ENGS 101 INTRODUCTION TO ENGINEERING

Fall, 2 credit hours

This course will introduce students to the profession of engineering and the tools used to practice engineering. The student will explore the design process through various projects that will include a major design project. During these projects, students will learn about computer aided design, engineering analysis, sketching, critical thinking, ethical decision making, and how to work in a team environment. Students will develop skills in oral presentations and effective writing. Students are assessed through performance on projects, exams, quizzes, homework, and oral and written reports. Two, two-hour laboratories per week.

ENGS 102 PROGRAMMING FOR ENGINEERS

Spring, 2 credit hours

This course provides the software skills necessary to create predictive models and solve basic engineering problems. Students will learn to make statistical inferences about the data while creating graphical presentation of the results using engineering-related software. The skills taught in this course will assist in the analysis of engineering problems in more advanced course work. Two, two-hour laboratories per week.

ENGS 201 STATICS

Fall, 3 credit hours

A vector approach to particle equilibrium, equivalent force systems, rigid body equilibrium and analysis of structure. Additional topics include friction, centroids and centers of gravity and moments of inertia. Three hours lecture per week. Prerequisites: Calculus II (MATH 162), University Physics II (PHYS 106), or permission of instructor.

ENGS 202 DYNAMICS

Spring, 3 credit hours

This course is a vector approach to the solution of dynamics problems involving rectilinear motion, curvilinear motion, kinetics of particles, kinematics of rigid bodies, and plane motion of rigid bodies. Newton's laws, work - energy principles and impulse and momentum principles are used in the solutions. Three hours lecture per week. Prerequisite: Statics (ENGS 201) or permission of instructor.

ENGS 203 ENGINEERING STRENGTH OF MATERIALS

Fall, 3 credit hours

This course is designed to introduce elementary analysis of deformable bodies subjected to various loading including strength, deformation and stability analyses. Students will also be introduced to more advanced concepts in order to use sound judgment regarding the design of structures and components. Three hours lecture per week. Prerequisite: Calculus II (MATH 162), University Physics II (PHYS 106) or permission of instructor.

ENGS 205 MATERIALS SCIENCE

Spring, 3 credit hours

The underlying atomic and crystalline structure of materials is studied and how these structures affect

their engineering properties. The mechanical, electric, chemical, magnetic and thermal properties of metals, ceramics, polymers and composites are examined. Three hours lecture per week. Prerequisite: Statics (ENGS 201) or permission of instructor.

ENGS 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN ENGINEERING SCIENCE

Fall/Spring, 1-4 credit hours

Special Topics in Engineering Science will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available.

ESCI 101 INTRODUCTION TO ENVIRONMENTAL SCIENCE

Fall/Spring, 3 credit hours

GER 2

This course is divided into five major sections: Resources/Human Population, Matter/Energy, Ecology, Environmental Law/Economics and Risk, and Environmental Degradation. Resources/Human Population will include resources types, alternative energy sources, and human population dynamics. Matter/Energy will include the basic principles of matter and energy from a physics and/or chemistry perspective in preparation for the Ecology and Environmental Degradation sections. Ecology will include ecosystem basics, land ecosystems, and aquatic ecosystems. Environmental Law/Economics and Risk will include major laws dealing with pollution discharge/cleanup, treatment of pollution and an economic commodity, risk, and toxicology principles. Environmental Degradation will include water resources, sewage treatment, air pollution, and hazardous/solid waste. Three hours lecture per week. Prerequisites: Beginning Algebra (MATH 100); Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102); or permission of instructor.

ESCI 102 INTRODUCTION TO ENVIRONMENTAL SCIENCE LABORATORY

Fall/Spring, 1 credit hour

GER 2

This laboratory is designed to provide scientific laboratory experiences using environmental issues as a data source or focus. Each exercise involves the collection of data, manipulation of the collected data, and analysis of the data. The experiments include energy conservation, chemical toxicology, river/stream attributes, pond morphology, design of private sewage systems, evaluation of solar/wind power potential, solid waste/composting, and the evaluation of the distribution of an environmental contaminant. Two hours laboratory per week. Prerequisites: Beginning Algebra (MATH 100); Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102); or permission of instructor. Corequisite: Introduction to Environmental Science (ESCI 101) or permission of instructor. Recommended math level—Intermediate Algebra (MATH 106).

ESCI 105-LECTURE ESCI 106-LAB ENERGY RESOURCES

Spring, 3-4 credit hours

GER 2

This course examines the physical, economic, and political interactions of the following energy resources:

Course Descriptions: ENVIRONMENTAL SCIENCE, FRENCH, FUNERAL SERVICES

fossil fuel, nuclear power, biomass and solar energy. Three hours lecture per week. If lab is elected, an additional two hours laboratory per week is required. Recommended prerequisite: students have high school algebra or equivalent.

ESCI 107 EARTH SCIENCE

Fall/Spring, 4 credit hours

This course introduces earth processes and phenomena. The birth of the universe, our solar system, and the earth are explored. The internal composition and structure of the Earth is studied. Factors that affect the structure of the earth are examined: continental drift, plate tectonics, and crustal deformation. Students learn about common earth materials that make up the Earth. The impact of weathering, erosion, running water, and glaciers on the earth's surface and landforms is studied. Additional topics will include, but are not limited to: earthquakes, volcanoes, mass movement, geologic time, and geologic mapping. Lecture related exercises/assignments, laboratory exercises, readings, and review questions help students learn and understand the course material. Three hours lecture, two hours laboratory per week. Students cannot receive credit for both ESCI 107 and GEOL 101.

ESCI 110 INTRODUCTION TO METEOROLOGY

Fall/Spring, 3 credit hours

This is an introductory meteorology course with topics covering the structure of the atmosphere, meteorological measurements, air movement, air masses and fronts, violent storms and climate. Three hours lecture per week.

ESCI 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN ENVIRONMENTAL SCIENCE

Fall/Spring, 1-4 credit hours

Special Topics in Environmental Science will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available.

FREN 101 CONTEMPORARY FRENCH I

Fall, 4 credit hours

GER 9

This course will introduce the student to the sound system and grammatical structure of the French language. The focus will be on developing skills in the areas of aural comprehension, speaking, reading, and writing. By the end of the semester, the student will have a basic understanding of grammar, including word formation, verb conjugations, idiomatic expressions, and cognates. This course will also discuss various cultural aspects of the French-speaking world. Four hours lecture per week. This course is only for the true beginner or for students who have had less than three years of high school French. Students who have taken more than three years of high school French within the last three years can enroll in this course only with the permission of the instructor

FSAD 111 STUDY OF FUNERALS

Fall, 3 credit hours

This course explores the history of funeral service from the Egyptian era up to contemporary practices.

This course also examines the major factors influencing the profession today. Funeral Service terminology, responsibilities and ceremonial responses will be examined. Three hours lecture per week.

FSAD 121 ANALYTICAL EMBALMING TECHNIQUES

Spring, 4 credit hours

This is the first of three embalming courses. Topics included are Public Health considerations, ethical performance, instrumentation, and decomposition were also reexamined. A final grade of "C" or better is required to continue in the program. Three hours lecture, three hours laboratory per week.

FSAD 129 CLINICAL PRACTICUM

2 credit hours

Students are required to work in an assigned funeral home for a minimum period of five weeks. During this period, the students are expected to relate the theoretical background they have acquired to the practical functions of a funeral director. The faculty will contact the student and the funeral director periodically during the practicum. This will be by personal visits and/or phone conversations. The students are expected to serve this practicum without pay. Prerequisite: successful completion of one semester of embalming or permission of instructor.

FSAD 211 EMBALMING AND ASEPTIC TECHNIQUES

Spring, 4 credit hours

Subsequent to Analytical Embalming Techniques (FSAD 121), this course focuses on unique and special problems encountered by the embalmer in professional practice. Microbiology of pathogens and techniques of infection control are a major aspect. Three hours lecture, three hours laboratory per week. Final grade of "C" or better is required to continue in the program.

FSAD 214 FUNERAL HOME MANAGEMENT I

Spring, 3 credit hours

Study of management techniques and procedures necessary for successful operation of a small business with the major emphasis on funeral home management. Three hours lecture per week.

FSAD 223 RESTORATIVE ART

Spring, 4 credit hours

This course familiarizes the student with instruments, materials, and development of techniques for restoring the dead human body damaged as a result of disease and trauma. The course also explains the technique for the proper application of cosmetics. Three hours lecture, two hours laboratory per week. Prerequisite: Human Anatomy and Physiology I (BIOL 207), Study of Funerals (FSAD 211), or permission of instructor.

FSAD 225 PROFESSIONAL FUNERAL PRACTICE

Fall, 3 credit hours

Study of business laws and professional ethics with special attention given to the Federal Trade Commission's Rule. Funeral home merchandising and its proper application also will be extensively covered.

Casket and vault construction will also be discussed. Three hours lecture per week.

FSAD 227 HUMAN RESPONSE TO DEATH

Spring, 4 credit hours

This writing intensive course is a survey of the psychological, philosophical, and sociological components of human loss and grief. The understanding of bereavement is central to the development of communication and counseling skills. Laboratory exercises include arranging and conducting mock funerals. Three hours lecture, two hours laboratory per week.

FSAD 321 ADVANCED EMBALMING PRACTICE

Spring, 4 credit hours

Designed to improve the skills and knowledge base of students and practicing licensed personnel, this course focuses on the less common techniques applied in unusual situations. Waterless embalming, regional freezing procedures, mummification, alternative machinery, and special purpose chemicals will be explored. Unique embalming situations are addressed such as long-term storage, entombment vs. burial, decomposed bodies, stillbirths, religious limitations, anatomical embalming, and fragment treatment in anticipation of delayed final disposition. Perfection of techniques of sterile procedure, eye enucleation, terminal disinfection, and personal protection is expected. Three hours lecture, three hours laboratory per week. Prerequisites: Analytical Embalming Techniques (FSAD 121), Embalming and Aseptic Techniques (FSAD 211), or permission of instructor.

FSAD 322 FUNERAL HOME MANAGEMENT II

Fall, 3 credit hours

This course addresses the practical problems facing funeral managers in contemporary society. Marketing strategies, pricing methods, creative personnel management, alternative memorial activities, prearrangement sales, financial assessment techniques, aftercare, transition planning, expansion of facilities, and establishment of consortia of funeral homes. Recruitment and training of non licensed staff, compliance methods, salary incentives, and record keeping which meet legal requirements are included as well. Three hours lecture per week. Prerequisites: Funeral Home Management (FSAD 214), Business Organization and Management (BSAD 100) or permission of instructor.

FSAD 401 FUNERAL SERVICE LAW

Spring, 3 credit hours

This course deals with laws directly related to funeral service. The student will be concerned with the laws that pertain to solicitation of clients, rights of possession, cemeteries, interstate agreements, international shipping, funding vehicles, association rights, lobbying, local ordinances, and employer/employee relationships. General Business Law concepts are also covered. Three hours lecture per week. Prerequisite: majors only or permission of instructor.

FSAD 406 BEREAVEMENT COUNSELING

Spring, 3 credit hours

Building upon the rudimentary counseling skills

Course Descriptions: FUNERAL SERVICES, FORENSIC SCIENCE, FINANCE

developed in FSAD 307 this course addresses deeper and more varied emotional problems stemming from loss. Utilization of theories of grief from several authorities and application of a range of counseling techniques to individual situations makes this a useful approach to delivery of human services. Anticipatory grief, hospice, disenfranchised loss, child death, suicide, homicide, absent grief, and extended grief are major topics. Application of the skills developed is limited to the funeral home setting. The student will observe and describe the progress of a person who has suffered a recent loss as an original research project. Three hours lecture per week. Prerequisite: Human Response to Death (FSAD 307) or permission of instructor.

FSAD 420 **CURRENT ISSUES IN FUNERAL SERVICE** *Fall, 3 credit hours*

As the field of funeral service continues to change in response to societal demands, this class provides the opportunity to keep abreast of these developments. Topic areas will include: public health, government regulation, funeral home management, religious and secular rites and rituals. Major focus will be on the effects that changes might have on the grief process, societal readjustment following death, and creative ways for funeral service practitioners to address the future. Historical perspective will be utilized as a predictive tool in assessing society's new outlook on loss and recovery. Three hours lecture per week. Prerequisites: junior level status; Writing Intensive.

FSAD 440 **INTERNSHIP IN FUNERAL SERVICES** **ADMINISTRATION** *Fall/Spring, 8 credit hours*

Students will spend at least 40 hours per week for eight weeks in this experiential course. They will perform the standard duties of Funeral Director trainees in the areas of Funeral Directing and embalming. Successful completion of the course is based on assessment of supervising faculty and funeral home preceptor. Prerequisites: Funeral Home Management II (FSAD 322), Funeral Service Law (FSAD 401) or permission of instructor.

FSBT 330 **FORENSIC ANALYTICAL CHEMISTRY** *Fall/Spring, 4 credit hours*

This course is an introduction to the principles of qualitative and quantitative chemical analysis for use in forensic science. This course includes analytical separation techniques, precipitation and acid-base titrations, gravimetric techniques, chromatographic methods, electrochemistry, and spectrometric methods of detection and analysis, with primary emphasis on the application of these techniques in forensic investigations. Prerequisites: College Chemistry II (CHEM 106) and Introduction to Forensic Investigation (JUST 210), or permission of instructor.

FSMA 201 **INTRODUCTION TO FINANCIAL** **PLANNING** *Fall semester, 3 credit hours*

This course is an introduction to personal finance planning covering the personal financial planning process. Topics covered will include: developing and

analyzing financial statements, plans and budgets; the notion of time value of money; money and credit management; fundamentals of taxes, insurance, investments, retirement planning, major asset accumulation, and estate planning. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral & Written Expression (ENGL 102), Foundations of Financial Accounting (ACCT 101), and Microeconomics (ECON 103), or permission of instructor.

FSMA 210 **INTRODUCTION TO FINANCE** *Fall/Spring, 3 credit hours*

This introductory course covers fundamental elements of business finance. Discussions will include the concepts of financial analysis, time value of money, security evaluations, risk and return, capital budgeting, and other issues in corporate decision making. Three hours lecture per week. Prerequisites: Introduction to Information Technology (CITA 110), GER Math OR Foundations of Financial Accounting (ACCT 101), or permission of instructor.

FSMA 301 **PERSONAL FINANCE** *Fall/Spring, 3 credit hours*

This course will provide broad coverage of personal financial decisions. Topics covered includes basic financial planning, tax issues, managing savings and other liquid accounts, credit management, insurance, managing investments and retirement planning. Knowledge of financial products, analytical tools, and economic analysis will be cultivated in the context of setting personal financial goals and measuring progress. Three lecture hours per week. Prerequisites: General Education Requirement for Math or Math of Finance (MATH 108) and Foundations of Financial Accounting (ACCT 101) or permission of instructor.

FSMA 312 **FINANCIAL MANAGEMENT** *Spring, 3 credit hours*

This course is a continuation of Introduction to Finance (FSMA 210). Portfolio theory, efficient market theories, and Capital Asset Pricing Model will be further elaborated and applied to make capital budgeting, capital structure, and dividend policy decisions within corporations. Special topics on agency conflicts, mergers and acquisitions, and corporate risk management will also be discussed. Three hours lecture per week. Prerequisite: A minimum grade of C in Introduction to Finance (FSMA 210) is required or permission of instructor.

FSMA 315 **GLOBAL INVESTMENT** *Fall, 3 credit hours*

The primary objectives of this course are to provide the students with a fundamental knowledge of domestic/international financial markets, financial securities and how they are valued and traded in order to achieve a desired investment objective, from both a theoretical perspective and the perspective of investment managers. Special attention is given to application of the basic concepts to the three major capital markets: stock, bond and financial derivatives markets. Three lecture hours per week. Prerequisites: Foundations of Financial Accounting (ACCT 101), Business Law I (BSAD 201), and Principles of Macro-

economics (ECON 101), or permission of instructor.

FSMA 320 **ANALYSIS AND PORTFOLIO** **MANAGEMENT**

Fall/Spring, 3 credit hours

The course provides a foundation for selecting financial assets and form sound investment decisions. Lectures cover both traditional and modern approaches to security selection, investment analysis and portfolio management, with emphasis on investment strategy and investment performance evaluation. The major topics to be covered will include portfolio analysis, company/industry analysis, optimal portfolio selection, efficient transactions, performance evaluation and investment ethics. Current topics, such as options, futures, swaps and other financial instruments are also explored. Three lecture hours per week. Prerequisites: Introduction to Finance (FSMA 210) or permission of instructor.

FSMA 325 **FINANCIAL COMPLIANCE AND** **REGULATION**

Fall, 3 credit hours

The role of regulatory and compliance professionals in the financial service industry is currently undergoing enormous change and development. This course will take an interdisciplinary approach incorporating economics, ethics, finance, law and public policy in surveying the specific goals and objectives of the financial regulatory and compliance function. The course is designed with the practitioner in mind with an emphasis on the anticipation and prevention of regulatory and compliance problems before they occur. Prerequisites: Introduction to Finance (FSMA 210), Business Law I (BSAD 201), Principles of Macroeconomics (ECON 101), and Principles of Banking (BSAD 120), or permission of instructor.

FSMA 410 **ESTATE PLANNING** *Spring, 3 credit hours*

This course will focus on the areas of estate planning that are commonly incurred in the financial planning process. An understanding of the methods of wealth and estate transfer, as well as asset taxation protection will be discussed. Three hours lecture per week. Prerequisites: Introduction to Financial Planning (FSMA 201) and junior/senior level status, or permission of instructor.

FSMA 415 **GLOBAL FINANCE** *Spring, 3 credit hours*

This course will cover issues related to both international financial markets and the financial operations of a firm within the international environment. Major topics include the international monetary systems, foreign exchange regime, management of foreign exchange exposure, international financial management, taxation of international income, and international mergers and acquisitions. Three hours lecture per week. Prerequisites: Global Investments (FSMA 315) or permission of instructor.

Course Descriptions: GEOGRAPHY, GEOLOGY, GRAPHIC & MULTIMEDIA

FSMA 420 FINANCIAL DERIVATIVES *Spring, 3 credits*

This course will examine the dramatic growth of the derivatives markets in the last two decades. This growth, triggered by deregulation, globalization, increased uncertainty and volatility, has empowered enterprises to successfully manage their financial price risk. Topics to be covered include: the use of derivatives for risk protection, cash flow modification, arbitrage, and investment. Three hours lecture per week. Prerequisite: junior level status in Finance or permission of instructor.

FSMA 422 RISK MANAGEMENT *Fall, 3 credit hours*

Proactive management of financial price risk has become possible through the dramatic growth of the derivatives markets. Beginning in the early 1980's, the ability to create new financial products utilizing derivatives inaugurated the process now referred to as Financial Engineering. Through Financial Engineering, risks to the firm can be largely mitigated or reduced using derivatives to offset price, commodity, and cash flow risks. Three hours lecture per week. Prerequisite: Financial Derivatives (FSMA 420) or permission of instructor.

FSMA 429 ORIENTATION TO CULMINATING EXPERIENCE *Spring, 1 credit hour*

This course is intended as the precursor to the Senior Culminating Experience in the Finance, BBA program. Seniors will meet with faculty on a weekly basis to discuss resumé preparation, job interviewing techniques, identifying and securing internships and internship requirements. This course is a prerequisite to Finance Internship (FSMA 480). Fifteen lecture hours to include: lecture, discussion, internship preparation and review. Prerequisite: senior level status in Finance program.

FSMA 460 SENIOR PROJECT *Fall/Spring, 3-15 credit hours*

This course is an alternative to FSMA 480. It is designed for students who are unable to complete a 15-credit internship. Students will complete a senior research project specifically addressing issues under the umbrella of financial management. Under the guidance of a faculty mentor, the student will submit a research proposal, conduct research, prepare a thesis style report, and present a defense to a thesis committee. This course may be repeated for credit up to a maximum of 15 credit hours. 37.5 project hours per credit hour. Prerequisites/corequisites: Introduction to Culminating Experience (FSMA 429) and senior level status in the Finance program or permission of instructor.

FSMA 480 FINANCE INTERNSHIP *Fall/Spring, 6-15 credit hours*

In conjunction with a field supervisor at the host organization, the student will perform prescribed work within an administrative setting. This is a culminating experience in which the student will be expected

to integrate and apply concepts gained in previous course work to actual situations. The internship will be tailored to the individual student's career interests and the needs of the supervising organization. Such internship assignments may include, but are not limited to, information gathering, analysis, planning, implementation, evaluation, and other tasks and responsibilities as required. Fifteen weeks; 37.5-40 hours per week, as required. Prerequisites: Orientation to Culminating Experience (FSMA 429) and senior level status in the Finance program, or permission of instructor.

FSMA 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN FINANCE *Fall/Spring, 1-4 credit hours*

Special Topics in Finance will generally include topics of interest or topics not covered in courses offered by the department or in combinations not currently available.

FYEP 101 FIRST YEAR EXPERIENCE *Fall/Spring, 1 credit hour*

This course is designed to introduce, acclimate and connect students to the college campus. In-depth discussions, specialized topics and a final presentation tied to a common First Year Experience theme will assist students in formulating professional goals and achieving academic success. One hour of lecture per week.

GEOG 101 INTRODUCTION TO GEOGRAPHY *Spring, 3 credit hours* GER 3

This course provides a survey of two major themes in geography—the physical landscape and the distribution and interrelationships of human activities over the globe. Special emphasis is given to developing a geographical perspective to address economic, population and social problems at local, regional and global levels. Three lecture hours per week. Social Science elective.

GEOG 101 PHYSICAL GEOLOGY *Fall/Spring, 3 credit hours* GER 2

This course includes a general look at the earth including its composition and structure on a large scale. The processes which cause changes in and on the earth will also be studied. Topics will include: the study of minerals and rocks, the origin and type of rocks, the rock cycle and the identification of many of the common rocks and minerals. Other major topics include: geologic time, weathering, erosion, glaciers, running water, volcanoes, earthquakes and plate tectonics. Three hours lecture per week.

GEOG 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN GEOLOGY *Fall/Spring, 1-4 credit hours*

Special Topics in Geology will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available.

GMMD 101 INTRODUCTION TO MEDIA STUDIES *Fall/Spring, 3 credit hours* GER 7

This course will introduce students to the process of media analysis. Emphasis will be placed on key terms for adopting a critical eye towards mass media

and the development of media literacy in both traditional (print, radio, film, television) and emerging (digital and web-based) forms. Three hours lecture per week.

GMMD 102 INTRODUCTION TO DESIGN *Fall/Spring, 3 credit hours* GER 8

Introduction to Design is a studio-based class investigating the tools, materials, and foundational concepts of design. Introduction to Design will present the methodology and critical awareness for problem solving inherent in all design fields. Through the discussion, examination and execution of a variety of design exercises, students will develop their understanding of visual composition and design theory. While the course exercises focus on 2-D graphic design, this broad introduction to design theory develops the creative problem solving skills integral to all fields of design. Three hours lecture per week.

GMMD 201 DIGITAL PHOTOGRAPHY *Fall, 3 credit hours* GER 8

Students will develop competency in digital image capture, processing, and critical evaluation. Hands-on activities and studio/lab will permit each student to investigate the applications of applied digital and hybrid photography. Through technical studio assignments, critiques, and presentations, students will increase their skills in image printing, camera operation and using computer imaging software. Students will also develop critical awareness of composition and the relationship of digital photography to other media. Three hours lecture per week.

GMMD 211 FILM ANALYSIS *Fall/Spring, 3 credit hours* GER 8

As an introduction to the art of film, this course will present the concepts of film form, film aesthetics, and film style, while remaining attentive to the various ways in which cinema also involves an interaction with audiences and larger social structures. Throughout the course, we will closely examine the construction of a variety of film forms and styles—including the classical Hollywood style, new wave cinemas, experimental films, and contemporary independent and global cinemas. We will pay particular attention to the construction of film images, systems of film editing, film sound, and the various ways in which film systems can be organized (narrative, non-narrative, genres, etc.) There is a required weekly film screening. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) or permission of instructor.

GMMD 301 3-D DESIGN *Spring, 3 credit hours*

3-D design bridges the concepts of design with the basic methodologies and concepts of three dimensional fabrication and composition. The course will challenge students to further develop and employ problem solving methodology to a variety of basic conceptual and practical problems in 3-Dimensional space. The course emphasizes the basic sculptural methodologies, including subtractive and additive processes, assemblage, construction, carving, casting, molding, armature,

Course Descriptions: GRAPHIC AND MULTIMEDIA DESIGN, HISTORY

and kinetics/mechanics. The ability to move between 2-dimensional and 3-dimensional conceptualization/realization is the primary focus of this class. Three hours lecture per week. Prerequisite: Introduction to Design (GMMD 102).

GMMD 302 DIGITAL PHOTOJOURNALISM

Fall/Spring, 3 credit hours

Building upon the introductory skills of GMMD 201, this course explores the use of the digital photographic image in narrative, documentary, and editorial form. The classroom lectures will emphasize the act of photographing and the process and history of photojournalism. Through practical assignments, students will develop their skills and awareness in on-location photography, constructing and presenting visual narratives, and the ethics and issues of photojournalism. Particular emphasis will be placed on the mature exploration of contemporary themes, the recognition and application of appropriate narrative voice in projects, and the increased awareness of ethical and technical issues and responsibilities in photojournalism. Three hours lecture per week. Prerequisites: Digital Photography (GMMD 201) and Introduction to Design (GMMD 102), or permission of instructor.

GMMD 303 EXPERIMENTAL DIGITAL PHOTOGRAPHY

Spring, 3 credit hours

This course builds sequentially on the introductory skills developed in GMMD 201. Through lectures, tutorials, and hands-on laboratory exercises, students will expand their capabilities in digital image capture, processing, printing and presentation. Experimental techniques and approaches in digital imaging will be emphasized. In addition to broadening technical and conceptual capabilities, through research and laboratory projects students will achieve a more sophisticated understanding of contemporary digital media and begin to locate their work in relation to contemporary fine arts and media. Three hours lecture per week. Prerequisites: Introduction Design (GMMD 102) and Digital Photography (GMMD 201), or permission of instructor.

GMMD 313 STUDIES IN GENRE FILM

Fall/Spring, 3 credit hours

GER 8

This course will provide an opportunity to study one film genre in depth. Emphasis will be on thematic cultural analysis of the genre's role in contemporary society. Different topics will be offered on a cycle, including the following: Documentary Film, Horror in Film, The Film Western, History of the American Comic Film, and Science Fiction in Film. Three hours lecture per week. Prerequisites: Junior status and at least one literature course. Students may take one genre for Gen ED credit. Students may take two genres for elective credit.

GMMD 401 MULTIMEDIA PRODUCT DESIGN

Fall, 3 credit hours

This course will provide for an experimental and experiential approach to integrating content with new media techniques and processes. Students will use computers as creative tools to explore narrative, immersion, virtuality, visuality, and networked public

sphere. Students will also develop planning and organizing skills for experimental interactivity and imaging projects. Three hours lecture per week. Prerequisites: Visual Programming and Development Tools (CITA 342), and Digital Photojournalism (GMMD 302), and senior level status, or permission of instructor.

GMMD 409 ISSUES IN NEW MEDIA JOURNALISM

Fall/Spring, 3 credit hours

This course explores the politics of new media entering the world of traditional print and broadcast journalism. Students are asked to consider whether non-centralized forms represent a new democratization of publishing or whether they erode the possibility of objective journalism. Emphasis is placed on situating these new forms within a history of journalism from its 17th century beginnings through the new journalism of the sixties and into the present implications of reporting through social networks. Three hours lecture per week. Prerequisites: Professional Communication (ENGL 301), and Journalism (GMMD 309), and senior level status, or permission of instructor.

GMMD 411 DIGITAL DOCUMENTARY VIDEO

Fall/Spring, 3 credit hours

This course builds upon the technical, compositional and production techniques learned in GMMD 201 and GMMD 102. Through project-based studio production, this course will explore the practice of documentary filmmaking. Students will discuss basic tools and principles of film narration, montage and the technical and compositional aspects of using archival, found and produced footage. Through lectures, critiques, research and studio exercises, students will explore the creative process of interpreting, representing, and affecting the sociological and environmental relationships of this age by means of the moving image. Three hours lecture per week. Prerequisite: Digital Photography (GMMD 201) and Introduction to Design (GMMD 102), or permission of instructor.

GMMD 412 EXPERIMENTAL DIGITAL VIDEO

Fall/Spring, 3 credit hours

This course builds upon the technical, compositional and production techniques learned in GMMD 301 and GMMD 102. Through tutorials, studio assignments, critiques, and research, students will utilize advanced techniques and conceptual approaches to produce and critique several digital video works. Students will combine the elements of performance, scripting, sound, computer graphics, and video techniques, as well as have in-group discussions about student- and professional-produced films. Three hours lecture per week. Prerequisites: Digital Photography (GMMD 201) and Introduction to Design (GMMD 102), or permission of instructor.

GMMD 432 VIRTUAL WORLDS

Spring, 3 credit hours

This course examines gaming concepts, nonlinear narrative, delivery systems and software for the entertainment industry. Working with 2D and 3D visual concepts, virtual reality, interactivity and sound the student will develop media for the entertainment

industry. Environments, characters, gaming strategies, role playing concepts, navigation and feedback will be part of the information presented within the course. Three lecture hours per week. Prerequisites: Visual Programming and Development Tools (CITA 342), Classical Theater (ENGL 393) or Contemporary Theater (ENGL 394), Creative Writing (ENGL 221) or Short Fiction (ENGL 315) and senior level status, or permission of instructor.

GMMD 440 ORIENTATION TO CULMINATING EXPERIENCE IN GMMD

Fall, 1 credit hour

This course will focus on allowing the student to create a proposal for either a combination of group and individual culminating projects or for a culminating internship. One hour lecture per week. Prerequisites: Senior level status and successful completion of all previous New Media work, or permission of instructor.

GMMD 441 GRAPHIC AND MULTIMEDIA DESIGN GROUP PROJECT

Spring, 3 credit hours

This course will focus on the planning, design, development, and production of a new media project by a team of students under the supervision of a faculty advisor. Three hours lecture per week. Prerequisite: senior level status and successful completion of all previous New Media work, or permission of instructor.

GMMD 442 GRAPHIC AND MULTIMEDIA DESIGN INDIVIDUAL PROJECT

Spring, 4 credit hours

This course will focus on the planning, design, development, and production of a new media project by individual students under the supervision of a faculty advisor. Three hours lecture per week. Prerequisite: senior level status and successful completion of all previous New Media work, or permission of instructor.

GMMD 443 ARTS MANAGEMENT INTERNSHIP

Spring, 8 credits

This course will focus on the challenges of negotiation, public relations, and management in arts contexts. Students will explore a variety of management situations in broadcasting, galleries, museums, and theaters. Students will complete a supervised internship in local arts organizations. Three weeks of three hour lecture, 12 weeks of 36-40 hours internship. Prerequisite: senior level status or permission of instructor.

HIST 101 HISTORY OF THE WESTERN HERITAGE

Fall, 3 credit hours

GER 5

This is a basic survey course in European history from early civilizations to approximately 1550 A.D. The focus is on the values, traditions, and changes that have characterized and determined Western culture, political institutions, social structures, and economic systems. Among the topics to be studied are: the Classical civilizations of Greece and Rome, Christianity, Islam, the Middle Ages, the Renaissance, and the Protestant Reformation. Three hours lecture per week.

Course Descriptions: HISTORY, HEALTH RELATED

HIST 102

MODERN EUROPE

Spring, 3 credit hours

GER 5

A study of European history from the Reformation to the present. The focus is on several areas of historical change which have transformed Europe: culture (the Enlightenment, romanticism, contemporary European thought), politics (absolutism, power politics, and imperialism, ideologies liberalism, nationalism, socialism, and fascism), society and the economy (urbanization, industrialization, and the development of a global economy). Three hours lecture per week.

HIST 103

EARLY AMERICAN HISTORY

Fall/Spring, 3 credits

GER 4

This course deals with the leading aspects of American history from discovery through the end of the Civil War. Attention is given to political issues, institutions, political parties, leadership, and diplomatic and constitutional questions, as well as economic, social and intellectual trends. This course also focuses on what is unique in the American historical experience, and relates American history to the broader global setting. Three hours lecture per week.

HIST 105

MODERN U.S. HISTORY

Spring, 3 credit hours

GER 4

This course deals with the leading aspects of American history from the Civil War to the present. Attention is given to political issues, institutions, political parties, leadership, and diplomatic and constitutional questions; as well as economic, social, and intellectual trends. This course also focuses on what is unique in the American historical experience and relates American history to the broader global context. Three hours lecture per week.

HIST 204

U.S. IMMIGRATION HISTORY THROUGH RACE, CLASS, AND GENDER

Fall/Spring, 3 credit hours

GER 4

This course examines the history of immigration to the United States from the mid-19th century through the 20th century. The main themes of the course will include issues of race, class, and gender and how they factor into the immigration process and subsequent settlement period. A plethora of immigrant groups will be studied not exclusive to the following: Eastern and Southern Europeans, Asian and Pacific Islanders, Latin Americans, and Africans. Three hours lecture per week. Prerequisites/corequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102); and Early American History (HIST 103), or Modern United States History (HIST 105), or Introduction to Women's Studies (WMST 201); or permission of the instructor.

HIST 205

BASEBALL IN AMERICAN SOCIETY

Fall/Spring, 3 credit hours

GER 4

This course examines the historical impact that baseball has had on economic, social and cultural issues in America, particularly in the twentieth century. The main themes include issues of race, class, gender, labor, and immigration and how they factor into the progression of American society. Particular topics include, but are not limited to, the Negro Leagues,

Latino and Japanese participation, women, and free-agency. Three hours lecture per week. Prerequisites/corequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), and Modern U.S. History (HIST 105), or permission of instructor.

HIST 217

WORLD HISTORY, FROM 1300 TO THE PRESENT

Fall/Spring, 3 credit hours

GER 6

Using a global perspective, this course will consider how different peoples and civilizations interacted, or failed to, in the last 700 years. Some of the themes that will be emphasized and examined are the roles that conquest, trade, diffusion of ideas and technology played in bringing different parts of the world together. Three hours lecture per week.

HIST 303

COLONIAL AMERICAN HISTORY

Spring, 3 credit hours

This course explores the important themes in the history of the British American colonies in the seventeenth and eighteenth centuries. Particular attention is devoted to social and cultural developments and to the bringing together of peoples from three different continents in the colonies. Other avenues of inquiry relating to such matters as imperial politics and economic growth will also be pursued. Students will be encouraged to identify arguments and to consider multiple viewpoints. Journal writing will provide the opportunity to hone writing and analytical skills, and encourage students to pull together a broad range of materials and construct coherent arguments. Three hours lecture per week. Prerequisites: Early American History (HIST 103) and Expository Writing (ENGL 101) or Oral & Written Expression (ENGL 102) or permission of instructor.

HIST 304

UNITED STATES WOMEN'S HISTORY

Fall/Spring, 3 credit hours

GER 4

This course explores the social, economic, and political themes in United States Women's History from pre-European contact through the twentieth century. The diversity of women is emphasized and issues of class, race, national origin, activism, work, and the role of motherhood will be explored. Citizenship and the status of women in relationship to government will be discussed and analyzed. Three hours lecture per week. Prerequisites: 30 credit hours, Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), and a 2.50 cumulative GPA, or permission of instructor.

HIST 305

HISTORY OF THE VIETNAM WAR

Fall/Spring, 3 credit hours

This course provides an in-depth examination of the 20th century conflict in Vietnam through the lens of American involvement and interaction. Ideological, political, social, and economic contexts will be utilized as the events of the war are analyzed from both American and Vietnamese perspectives. The impact of the Vietnam War on American society, politics, and its Cold War foreign policy and conduct will also be scrutinized. Three hours lecture per week. Prerequisite: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102); and Modern United States

History (HIST 105) or World History (HIST 217); or permission of the instructor.

HIST 291-295, 391-395, OR 491-495

SPECIAL TOPICS IN HISTORY

Fall/Spring, 1-4 credit hours

An introductory or more advanced exploration of subjects not covered or only partially covered by other courses in history.

HLTH 100

INTRODUCTION TO MEDICAL SCIENCE WITH TERMINOLOGY

Fall/Spring, 2 credit hours

The course is designed primarily for students interested in an allied health career. The major emphasis will be medical terminology of communicable diseases, but will include professionalism, phone etiquette, confidentiality, and the importance of allied health teamwork. Two hours lecture per week.

HLTH 101

COMMUNITY CARDIOPULMONARY RESUSCITATION

Fall/Spring, 1/2 credit hour

In the Community CPR course, the student will learn how to perform CPR for a victim whose heart has stopped beating. The student will learn a number of other first aid techniques to help prevent a victim's heart from stopping. The student will also learn how to use their community's emergency medical services system more effectively and will learn a plan of action that applies to any medical emergency. In order to learn the first aid skills taught in this course, the student will be practicing on a partner and on a manikin. Two hours of class per week. General Elective Credit.

HLTH 102

STANDARD FIRST AID

Fall/Spring, 1/2 credit hour

The Standard First Aid course will train citizens to help people in emergencies. The course will teach standard first aid skills in individual needs in order to act as the first link in the emergency medical services (EMS) system. The focus of the course is to prepare participants to respond correctly in emergencies. Two hours of class per week. General Elective Credit.

HLTH 103

HEALTH: CURRENT PERSPECTIVES AND PRACTICAL APPLICATIONS

Fall, 3 credit hours

This general elective course is designed as an introductory health education course. The course will provide an opportunity for students to explore healthy life styles as well as learn about major health problems in the United States. Members of the teaching team will collaborate to help students become more informed about their rights and responsibilities related to remaining healthy or for accessing health services. Three hours lecture per week.

HLTH 104

INTRODUCTION TO GERONTOLOGY

Fall, 3 credit hours

GER 3

This interdisciplinary course is designed to introduce the student to the field of gerontology (the study of aging). The aging person will be viewed in a holistic manner. Topics to be included are demography

Course Descriptions: HEALTH RELATED, HEALTH CARE MANAGEMENT

of aging, social and economic characteristics of aging, biological, psychological and social theories of aging, biomedical aspects of aging and selected issues in health and aging. Persons over 65 and over 85 constitute the fastest growing segment of our population, so the course will be valuable to any student planning to work with people, or anticipate a need to become more involved with the needs of their own aging family members. The course will be conducted using a variety of study methods (independent research, discussion, lecture, films and videos). The student will be required to complete written reports on aspects of aging that will complement their own course of study. Three hours lecture per week.

HLTH 105 **PATHOLOGY** *Fall, 3 credit hours*

This course considers the natural response of the human body to disease, the process and progress of disease, and the implications for community health. Particular emphasis is placed on causes of deaths of interest to the embalmer. Three hours lecture per week. Open to all students.

HLTH 106 **PREVENTION AND TREATMENT OF** **ATHLETIC INJURIES** *Fall/Spring, 3 credit hours*

This course is a basic course designed to address the following aspects: the profession of athletic training; injury prevention; basic injury management techniques; injury recognition and assessment; basic treatment of athletic injuries. These aspects will be covered in an introductory manner to allow students from all tracks to build a foundation of knowledge which they can use in their chosen field. Three hours lecture per week, twelve hours of laboratory per semester.

HLTH 107 **INTRODUCTION TO HEALTH AND** **MEDICAL TECHNOLOGY** *Fall/Spring, 1 credit hour*

This course is designed to acquaint the student with various processes and influences that impact on role socialization/role transition, in moving toward a career in health care. The socialization process includes aspects through which the individual learns to interact with the expectations and obligations of various groups within the health care system and society. It is essentially a health careers exploration course. One hour lecture per week. General Elective Credit.

HLTH 108 **BASIC EMERGENCY MEDICAL** **TECHNICIAN-DEFIBRILLATION** *Fall/Spring, 4 credit hours*

This course is required of anyone who wishes to take the New York State test for EMT - Basic certification. The course involves all aspects of pre-hospital emergency care up to the level of the Intermediate EMT. Main topic areas include: basic anatomy and physiology; patient assessment; control of bleeding and shock; evaluation and treatment of soft tissue injuries, musculoskeletal trauma injuries, and internal injuries; cardiac arrest; defibrillation; emergency childbirth; environmental emergencies; lifting and moving, vehicle extrication, and transportation of patients. Classes typically meet 6 to 12 hours per week. Lecture

and practical lab hours per week varies according to schedule. Ten hours of emergency room observation and/or ambulance ride time is required in addition to class time. It is strongly recommended that students be a member of rescue squad or fire department. If not a member of rescue squad or fire department, they MUST have permission of Sponsor Administrator.

HLTH 109 **CERTIFIED FIRST RESPONDER** *Fall/Spring/Summer, 1 credit hour*

This course teaches the basics of good patient care and the skills first responders will need to deliver the appropriate care to victims of an accident or sudden illness until more advanced emergency medical help arrives. Forty-eight hours lecture, laboratory, testing and practical skills evaluation per semester.

HLTH 110 **SURVEY OF COMPLEMENTARY MEDICINE** *Fall, 3 credit hours*

This is an introductory course, which will survey eight major areas of complementary medicine. The eight major areas include Chinese medicine, Ayurveda, Naturopathic medicine, Homeopathy, Mind/Body medicine, Osteopathic medicine, Chiropractic medicine, and Massage Therapy/Body works. Three hours lecture per week.

HLTH 175 **BASIC NUTRITION** *Spring, 3 credit hours*

This basic nutrition course is designed to create an awareness of everyday healthy eating and physical activity necessary for a healthy lifestyle. The course will discuss personal profiles, Body Mass Index, calorie needs, the DASH eating plan, dietary guidelines, and chronic disease risk factors. Three hours of lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), or permission of instructor.

HLTH 200 **MEDICAL TERMINOLOGY OF DISEASE** *Fall/Spring, 3 credit hours*

Medical terminology will be presented from a disease viewpoint. Diseases will include a cross-section of several different areas such as skin, respiratory, blood, and neonatal. Three hours lecture per week.

HLTH 210 **ADVANCED EMERGENCY MEDICAL** **TECHNICIAN-INTERMEDIATE** *Fall/Spring, 3 credit hours*

This course is required of anyone who wishes to take the New York State test for Advanced EMT-Intermediate certification. The course involves orientation to the EMT-Intermediate program, roles and responsibilities, and the EMS system; medical/legal considerations, medical terminology; EMS communications, general patient assessment and management; airway management & ventilation which includes endotracheal intubation; pathophysiology of shock; kinetic of trauma, review of expanded primary assessment/resuscitation, abdominal trauma, thoracic trauma, extremities trauma; head trauma, pregnancy and trauma, spinal trauma, demonstration of spinal skills; CPR and defibrillation review; and IV Therapy. Lecture and practical lab hours per week vary ac-

cording to schedule. Out-of-classroom requirements include twenty-four (24) hours of Emergency Room clinicals; forty eight (48) hours of ambulance ride time, five (5) field and/or OR Intubations; ten (10) successful field IVs and four (4) hours of respiratory clinicals. If not a member of a rescue squad or fire department, they MUST have permission of Sponsor Administrator. Prerequisite: currently credentialed as an EMT - Basic.

HLTH 311 **ADVANCED EMERGENCY MEDICAL** **TECHNICIAN-CRITICAL CARE** *Spring, 4 credit hours*

This course is required of anyone who wishes to take the New York State test for Advanced EMT-Critical Care certification. The course involves all aspects of pre-hospital emergency care up to the level of paramedic. Main topic areas include: role & responsibilities of the EMT-CC, EMS systems, domestic violence, medical/legal considerations, medical terminology, EMS communications, general patient assessment, airway & ventilation, pathophysiology of shock, kinetics of trauma, review of expanded primary survey, abdominal trauma, thoracic trauma, extremity trauma, head trauma, pregnancy & trauma, spinal trauma, infection control & the EMT-CC, cardiology, CPR Refresher (must issue AHA/ARC certification card), general pharmacology, burn trauma, respiratory, patient medical history taking, communications skills, cardiovascular anatomy & physiology, cardiovascular assessment, cardiovascular emergencies, cardiac arrhythmias, cardiac medication administration, endocrine emergencies, central nervous system emergencies, anaphylaxis, poisoning, drug abuse, overdose, ALS treatment, protocol review, NYS EMT-CC Practical Skills Exam, NYS Written EMT-CC Certification Exam. Clinical requirements include an additional 20 hours of ambulance ride along time, 14 hours of ICU/CCU clinicals, and 5 successful field IV cannulations. Prerequisite: student must be currently certified as an EMT-Basic and completed the course requirements in the Intermediate class.

HLTH 291-295, 391-395, OR 491-495 **SPECIAL TOPICS IN HEALTH** *Fall/Spring, 1-4 credit hours*

Special Topics in Health will include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available. Prerequisite: permission of the instructor.

HSMB 101 **INTRODUCTION TO HEALTH SERVICES** **MANAGEMENT** *Fall, 4 credit hours*

This course introduces the student to the health care system in the United States and to the role of the health services manager. The course describes the fundamentals of health care system components, health care administrative functions, and health care management principles. Throughout the course, the instructor will work with students to develop their research, analytical, and communication skills in the health services management field. The laboratory hours will be incorporated into the weekly class sessions and will give the instructor the opportunity to plan field trips and other observational experiences. Three hours

Course Descriptions: HEALTH CARE MANAGEMENT, HUMANITIES

lecture, two hours laboratory per week.

HSMB/NURS 301 PUBLIC HEALTH ISSUES *Fall, 3 credit hours*

The course begins with an overview of the history and development of public health. The student is then provided with the opportunity to examine the current public health care system. The fundamentals of epidemiology also are covered. Applications to the students' practice settings are explored. Health planning, health promotion, and global health issues are included. Three hours lecture per week. Prerequisites: Microbiology (BIOL 209) and Survey of Mathematics (MATH 111) OR Statistics (MATH 141), or permission of instructor.

HSMB/NURS 302 LEGAL AND ETHICAL ISSUES IN HEALTH CARE

Spring, 3 credit hours

This writing intensive course prepares the student to examine legal and ethical issues in health care as they impact the health services manager, or others involved in health care decision making. A variety of commonly experienced legal situations and ethical dilemmas will be discussed, including the basics of civil and criminal health care law, professional liability, antitrust, managed care, organizational restructuring, patient rights, scientific research, rationing, health care practices, and other issues. The course also will educate students in legal research methods applied to the health services management field. Three hours lecture per week. Prerequisites: Public Health Issues (HSMB 301) or junior level status or permission of instructor. Writing intensive course.

HSMB 303 OCCUPATIONAL HEALTH AND SAFETY *Spring, 3 credit hours*

This course explores health and safety issues related to the workplace. Environmental controls that reduce transmission of communicable diseases, exposure to toxic substances, hazardous working conditions and accidents are included. Public policy decisions and health control program compliance issues are addressed. The effects of human-environmental interactions on physical, mental, and social well-being are explored. Three hours lecture per week. Prerequisites: junior level status or permission of instructor.

HSMB 304 U.S. HEALTH CARE SYSTEM *Fall, 3 credit hours*

The United States health care system is a large and vital segment of the United States economy. This course identifies and examines the various components of the U.S. health care system and the interrelationship of those components. Topics covered include health care in a free enterprise system, government regulation, health services access and utilization, health delivery settings, health care personnel, the pharmaceutical industry, public health, health insurance, managed care, quality of care, health policy, and other topics. Three hours lecture per week. Prerequisites: junior level status or permission of instructor.

HSMB 305 MANAGED CARE *Spring, 3 credit hours*

Managed care is the integration of the delivery and financing of health care. This course identifies and examines the various components of managed care and the interrelationship of those components. Topics covered include insurance and risk management applied to managed care, types of managed care organizations and arrangements, funding options, delivery options, prospective payment systems, quality assurance, outcomes measurement, contracting, provider responses, legal liability, regulation, public managed care programs, and other topics. Three hours lecture per week. Prerequisite: U.S. Health Care System (HSMB 304) or permission of instructor.

HSMB 306 HEALTH CARE FINANCING *Fall, 3 credit hours*

This course provides the student with an opportunity to understand the fundamentals of the financial management of health care organizations. The course includes such topics as accounting, financial statement analysis, time value money, cost analysis and budgeting, and agency costs and their effects on financial decision making. Three hours lecture per week. Prerequisites: U.S. Health Care System (HSMB 304), Introduction to Finance (FSMA 210), or permission of instructor.

HSMB 307 HEALTH CARE FACILITY ADMINISTRATION *Spring, 3 credit hours*

The course explores the overall responsibilities of an administrator in contemporary health care facilities. These responsibilities involve planning, implementation, and other management skills. To contribute to the achievement of these skills, along with a greater knowledge of health operations, the course examines health care organizational structures, operational aspects of clinical and non-clinical departments, delivery and finance system issues, quality improvement, strategic planning, decision-making, evaluation, and other administrative related topics. Three hours lecture per week. Prerequisite: U.S. Health Care System (HSMB 304) or permission of instructor.

HSMB 308 ORIENTATION TO INTERNSHIP *Fall, 1 Credit*

An internship is required to complete the degree in Health Services Management. The course prepares students for the internship by: securing an appropriate site and establishing learning objectives, describing journal contents and a portfolio, establishing contracts for SUNY approval and appropriate liability insurance documentation.

HSMB 330 GRANT WRITING STRATEGIES *Fall 2 credit hours*

This course provides a general overview of the grant seeking process. The facilitator will discuss the types of projects that generally get funded, sources that can be used to identify prospective funders, as well as the essential components of a well written grant. Participants will create a needs statement,

develop a project that will address that need, write clear goals and objectives for that project, develop a budget and identify an evaluation tool that could be used to measure outcomes for the project. Two hours lecture per week. Prerequisite: junior level status or permission of instructor.

HSMB 408 INTERNSHIP FOR HEALTH SERVICES MANAGEMENT *Spring, 3-12 credit hours*

Working in conjunction with a field supervisor, the student performs delegated work within an administrative setting. This is a culminating experience in which the student is expected to integrate concepts gained in previous program course work. The internship will be individualized according to the career interests of the student and the needs of the supervising organization. Internship assignments may include information gathering, analysis, planning, implementation, evaluation, budget and other responsibilities. A minimum grade of "B" is required. Three to twelve weeks at 40-45 hours per week or part-time equivalent. Prerequisite: completion of all program requirements or permission of the program director.

HSMB 409 SENIOR PROJECT *Spring, 3-9 credit hours*

This course is required for students who opt for 3-9 credits of internship instead of 12 credits of internship. Depending on the number of internship credits, students will be required to complete 3-9 credits of a senior project. The senior project requires extensive research and analysis on a health services management topic that is approved and supervised by the program director. The topic can include a project with a health care organization. Senior project may be repeated with different projects for a maximum of 9.0 credits. The student will be required to submit a written proposal of study for each project. The proposal will be evaluated for content specifics and appropriate credits. Upon completion of a project, the student will submit a written study and also be prepared to respond to questions on the study's methodology, findings, and conclusions. Project hours: 108-324. Prerequisite: completion of all program requirements and permission of the program director.

HSMB 410 SENIOR SEMINAR *Spring, 3 credit hours*

Senior Seminar serves as a capstone course for HSM program students who are completing their internship. The course, which examines advanced issues and contemporary developments in health services management, utilizes the training students have received in their prior courses and in their internship experiences. A minimum grade of "B" is required. Three hours lecture per week. Prerequisite/corequisite: Internship for Health Services Management (HSMB 408) or Internship for Veterinary Services Management (VSCT 408) or permission of the program director.

HUMA 101 INTRODUCTORY DRAWING *Fall/Spring, 3 credit hours*

This course is an introduction to the fundamental

GER 8

Course Descriptions: HUMANITIES, INDEPENDENT STUDY, CRIMINAL JUSTICE

principles and processes of drawing. Students will begin to develop a facility for the creative process and aesthetic expression. We will work from still-life, nature, the model and the imagination. Specific problems will be assigned to explore various drawing media, promote an understanding of pictorial structure, and cultivate good compositional judgment. Two hours lecture, two hours laboratory per week.

HUMA 201

ART HISTORY: B.C. TO 16TH CENTURY

Fall, 3 credit hours **GER 7 & GER 8**

This course is a study of the history of art from Cave Art to the Renaissance. Emphasis will be placed on the development of the art and architecture and its relationship to the cultural, political, social, and religious climate in which it was produced. Three hours lecture per week.

HUMA 202

ART HISTORY: 16TH TO 20TH CENTURY

Spring, 3 credit hours **GER 7 & GER 8**

This course is a study of the history of art from the Renaissance to modern times. Emphasis will be placed on the development of the art and its relationship to the cultural, political, and social climate of the time in which it was produced. Three hours lecture per week.

HUMA 203

ART AND SOCIETY

Fall/Spring, 3 credit hours

Art and Society explores the development of the Fine Arts and its relationship to social, political, and economic structures of both contemporary and historical cultures. Through the research, discussion, and presentation of several case studies in historical and contemporary art practices, students will develop their critical awareness of interdisciplinary relationships in present and past cultures. This course explores the artistic practice and production of several cultural epochs as both a symptom and parameter of social-political trends/events. Students will develop their understanding of significant contemporary and historical issues and explore their bearing and relationship to the Fine Arts. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) or permission of instructor.

HUMA 291-295, 391-395, OR 491-495

SPECIAL TOPICS IN HUMANITIES

Fall/Spring, 1-4 credit hours

Special Topics in Humanities will fulfill the general humanities component of the distribution requirement of the College. It may be repeated for credit depending on the content of the course. It is not a course offered on a regular basis within the department. The intent of a special topics course is to offer an educational experience which is topical, not available within the regular curricular offerings, and may even be offered interdepartmentally depending on the nature of the course.

INDEPENDENT STUDY

Fall/Spring, credits variable

A planned learning experience accomplished independent of formal classroom and/or laboratory sessions through written contract between a student and a member of the College's faculty. Credits earned may be applied as electives or may be taken in lieu of

required subjects under special circumstances. Credits: Variable, not to exceed a total of 12 hours toward the degree or certificate.

JUST 101

INTRODUCTION TO CRIMINAL JUSTICE

Fall/Spring, 3 credit hours

This course is a comprehensive study of the development of criminal justice systems and operations in the United States. This course includes detailed examination, analysis and evaluations of the major components of the criminal justice system. Three hours lecture per week. Open to any student.

JUST 105

CORRECTIONAL PHILOSOPHY

Fall/Spring, 3 credit hours

A survey of the philosophy, theory, and practice involved in the treatment of convicted law violators of all ages within the institutional environment. This course provides an overview of the correctional field; its origins, development, current status, and future prospects. The role of corrections and its importance in the reduction and control of crime and recidivism is evaluated. Three hours lecture per week. Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor.

JUST 110

CRIMINAL LAW

Fall/Spring, 3 credit hours

A study of the fundamentals of criminal law: i.e., actus reus, mens rea, distinctions between grades of offenses; criminal responsibility; and the substantive law. Three hours lecture per week. Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor.

JUST 111

CRIMINAL PROCEDURE

Fall/Spring, 3 credit hours

A study of principles that regulate the balance between the power of our government and the rights of individual citizens. Topics include specific constitutional amendments, searches and seizures, stops and arrests, the use of force in effecting arrests, the use of search and/or arrest warrants, self-incrimination, and stages of criminal proceedings in the U.S. Three hours lecture per week. Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor.

JUST 201

CRITICAL ISSUES IN CRIMINAL JUSTICE

Fall/Spring, 3 credit hours

A study of the economic, political, ethical and emotional issues in community policing, courts and corrections. Some of the issues covered are AIDS and criminal justice services, emotional stress and coping skills needed in criminal justice employment, understanding prejudices and functioning in a culturally-diverse society, plea bargaining and the death penalty. Three hours lecture per week. Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor. Writing intensive course.

JUST 203

CRIMINAL INVESTIGATIONS

Fall/Spring, 3 credit hours

This course is designed to teach those skills and

knowledge necessary to conduct thorough preliminary investigations of crimes. Techniques used to investigate common categories of crimes will be discussed. A major emphasis in this course will be the preparation and execution of investigative plans as they relate to a team approach. Other skills will include interviewing, crime scene processing, and basic forensic examination of evidence. Three hours lecture per week. Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor.

JUST 205

CRIMINAL JUSTICE SEMINAR

Fall/Spring, 3 credit hours

This course is designed to offer the student an opportunity to have a practical field experience with a criminal justice agency of his/her choice. The student will observe and participate in the daily functioning of an agency, share information with other students, and provide the participating agency with a valuable commodity – their time as volunteers. This course may take one of two forms, either a practicum or library research, as agreed upon by both the student and the instructor. Prerequisite: Sophomore level standing in the Criminal Justice, Criminal Investigations, or Law Enforcement Leadership program, or permission of instructor.

JUST 207

POLICE SERVICES

Fall/Spring, 3 credit hours

This course provides students with an overview of the services that police agencies provide to the community. Programs, practices and techniques are presented with an emphasis on lawful behavior, efficiency and effectiveness. The topics include, but are not limited to: the importance of effective communication, arrest procedures, patrol strategy, enforcement of vehicle and traffic laws, violent behavior, terrorism, juvenile crime, disaster preparedness, and ethical behavior. Three hours lecture per week. Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor.

JUST 209

LAW ENFORCEMENT COMMUNICATIONS

Fall/Spring, 3 credit hours

This course will prepare students to write clear, accurate essays and grammatically correct police reports, and other writing assignments. Other communications instruments, such as note taking, interviewing, spelling and court testimony will be addressed. Three hours lecture per week. Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor.

JUST 210

INTRODUCTION TO FORENSIC INVESTIGATION

Fall/Spring, 3 credit hours

This course design will familiarize the students with crime scene evidence collection, documentation, and preservation, as well as various forensic techniques used by police officers and investigators. Related forensic disciplines will be applied to the criminal investigative process. Two hours lecture and two hours of laboratory per week. Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor.

Course Descriptions: CRIMINAL JUSTICE

JUST 211 DIAGNOSTIC EVALUATION OF THE OFFENDER

Fall/Spring, 3 credit hours

This course introduces the student to diagnostic report writing with particular emphasis on the presentence investigation report conducted by probation/parole officers. Students are guided through a series of graduated steps toward production of a comprehensive assessment of offenders. Additionally, alternatives to incarceration and their applicable use(s) with a variety of offender populations will be explored. Students will also receive instruction in the preparing of criminal justice reports to include resume and cover letter construction. Three hours lecture per week. Prerequisite: Correctional Philosophy (JUST 105) or permission of instructor. Substitute for Law Enforcement Communications (JUST 209).

JUST 215 COMMUNITY-BASED CORRECTIONS

Spring, 3 credit hours

This course is a study of the method and philosophy current in probation, parole, and other forms of community-based correctional services. The course material examines the role of the probation/parole officer, the community-based correctional programs director, and the community resources available to assist the probationer and parolee. This course presents the role of the probation/parole officer community corrections director as a human service agent as well as functional part of the criminal justice system. Three hours lecture per week. Limited to Criminal Justice, Criminal Investigation, and Criminal Justice: Law Enforcement Leadership students Prerequisite: Introduction to Criminal Justice (JUST 101) or permission of instructor.

JUST 216 INTRODUCTION TO PHYSICAL FITNESS

Fall, 2 credit hours

Familiarization with police-related, self-defense tactics. One hour lecture, two hours laboratory per week.

JUST 218 CRIME PREVENTION

Fall/Spring, 3 credit hours

This course provides the basis for strategic planning for the prevention of crime. Cooperative relationships are stressed between law enforcement and the community. The various types of crime prevention theories are presented to students who in turn will conduct actual crime prevention surveys. Three hours lecture per week. Prerequisites: Introduction to Criminal Justice (JUST 101), sophomore level status, or permission of instructor.

JUST 221 WOMEN AND CRIMINAL JUSTICE

Fall/Spring, 3 credit hours

A study of the female's role in the criminal justice system. Some issues covered are women working in the fields of law enforcement, corrections, and the court system. The course will also cover female offenders, prisoners, victims and other related topics. Three hours lecture per week. Prerequisites: Students will have successfully completed 24 college credit hours, including an intensive writing course, or permission

of instructor.

JUST 250 CIVIL LIABILITY ISSUES FOR THE POLICE ADMINISTRATOR

Spring, 3 credits

In this course students will be exposed to civil liability issues at the local, state, and federal law levels. Students will develop better awareness of the liability risks relative to police service. They will learn proactive protocols that may minimize personal and organizational liability risks. Three hours lecture per week. Prerequisites/corequisites: Introduction to Criminal Justice (JUST 101) or permission of the instructor.

JUST 255 ORGANIZED CRIME

Fall/Spring, 3 credit hours

This course is designed to provide students with a definition of organized crime, its historical overview from the 18th century to present, and the theories behind why people become involved in organized crime. Topics will include the development of organized crime in the northeast and its westward migration; nontraditional organized crime, the business enterprises of organized crime; the effect of organized crime in labor and business, and the effects of the media. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral & Written Expression (ENGL 102), and sophomore status, or permission of instructor.

JUST 300 FORENSIC PHOTOGRAPHY

Fall/Spring, 3 credit hours

This course provides an introduction to basic techniques, equipment, material and other aspects of crime scene photographs including theory and practice of photographic image formation and recordings. The course utilizes "hands-on" instruction with an emphasis on crime scene photography, evidence photography, and surveillance photography. Prerequisites: junior level status in the Criminal Investigation or Criminal Justice: Law Enforcement Leadership program or permission of instructor.

JUST 301 LATENT PRINTS AND IMPRESSIONS

Fall/Spring, 3 credit hours

This course is an introduction to the biological development of fingerprints and the identification of the various fingerprint patterns. Course activities include physical and chemical development of fingerprints, crime scene processing techniques, the Henry System of fingerprint classification, and the comparison and identification of suspect fingerprints through manual and automated means. Two hours lecture, two hours laboratory per week. Prerequisites: junior level status in the Criminal Investigation or Criminal Justice: Law Enforcement Leadership program or permission of instructor.

JUST 303 INTERVIEWS & INTERROGATIONS

Fall/Spring, 3 credits hours

This course provides students with proven techniques which apply to conducting accusatory and non-accusatory interviews. Students develop skills related to preparing for an investigative interview with

an emphasis on a proactive role. These skills include developing an interview strategy, interpreting physical and verbal cues, conducting a cognitive interview, developing admissions and confessions and recognizing a false confession. Course includes the most recent court rulings related to investigative interviews and admissibility of statements into court. Two hours lecture, two hours laboratory per week. Prerequisites: junior level status in the Criminal Investigation or Criminal Justice: Law Enforcement Leadership program or permission of instructor.

JUST 306 ARSON INVESTIGATION

Fall/Spring, 3 credit hours

An analysis of incendiary fire investigation from the viewpoint of the field investigator, with an emphasis on the value of various aids and techniques in the detention of arson, collection and preservation of evidence, investigation, interrogation, related laws of arson, court appearance and testimony. Three hours lecture per week. Prerequisites: junior level status in the Criminal Investigation program, Forensic Photography (JUST 300), or permission of instructor.

JUST 308 VEHICLE ACCIDENT RECONSTRUCTION

Fall/Spring, 3 credit hours

This course details the investigative methods of processing a motor vehicle accident. An accident investigation involves the locating, recording, and interpreting of evidence of a motor vehicle accident. Students will learn to assess skids, damage, debris, surface qualities, tire condition, and environmental factors to determine point of impact, speed, potential of mechanical failure, and other contributing factors to the accident. Three hours lecture per week. Prerequisites: junior level status in the Criminal Investigation or Criminal Justice: Law Enforcement Leadership program or permission of instructor.

JUST 310 THE CAUSES OF CRIME

Fall/Spring, 3 credit hours

This course introduces various criminological theories to explain the cause of criminal behavior. Specific attention is placed on the primary theorists and the evolution of their corresponding theories and how they relate to current theories associated with biological, psychological, personality, intelligence and gender, and social disorder. Students learn to identify and apply criminological theories to the commission of specific criminal acts. The history of crime and punishment is reviewed, leading to the present day criminal justice system and competing criminological theories. Three hours lecture per week. Prerequisites: junior level status in Criminal Investigation or Criminal Justice: Law Enforcement Leadership Program or permission of instructor.

JUST 315 CONSTITUTIONAL LAW

Fall/Spring, 3 credit hours

This course is an examination of the principles and processes of the American judicial system, constitutional issues defining the relationship between law enforcement and the people, civil rights and liberties, the powers of Congress, federalism, and the role of the chief executive. Three hours lecture per week. Prereq-

Course Descriptions: CRIMINAL JUSTICE

quisites: Introduction to Government (POLS 101) or Introduction to Criminal Justice (JUST 101), junior level status, or permission of instructor.

JUST 317 POLICE TACTICAL SEMINAR *Fall/Spring, 3 credit hours*

This course is designed to assist students in analyzing the methods and techniques recognized by law enforcement professionals as necessary to a career in criminal justice. Students will learn mental and physical techniques needed to handle dangerous and stressful police situations in a legal, positive manner. Two hours lecture, two hours laboratory per week. Prerequisite: Introduction to Criminal Justice (JUST 101) and junior level status or permission of instructor.

JUST 319/BSAD 319 PROFESSIONAL ETHICS *Fall/Spring, 3 credit hours*

This course acquaints students with the major frameworks for ethical decision making in the professions based on Kantian, Utilitarian and Contract ethics and principles: consequence, liberty, opportunity, need, justice and distributive justice. It examines ethical questions that can arise in professional practice, the relationship between professionals and clients as well as the connection between ordinary and professional morality. Students will use analytical tools to recognize and address contemporary ethical dilemmas in the professions: business, criminal justice and computer information systems. Emphasis is placed on utilizing ethical theories that affect thinking, policy formulation, and professional conduct. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) and junior level status, or permission of instructor.

JUST 320 MEDICOLEGAL INVESTIGATIONS OF DEATH *Fall/Spring, 3 credit hours*

This course provides an analysis of the medicolegal aspects of death investigation, including the manners, mechanisms, and causes of death, as well as the post mortem changes. The course also instructs the student on wound interpretation and the method to apply post mortem conditions to criminal investigations to confirm or refute evidence of wrongful deaths. Three hours lecture per week. Prerequisites: Introduction to Criminal Justice (JUST 101), junior level status or permission of instructor.

JUST 321 MANAGING LAW ENFORCEMENT TRAINING *Spring, 3 credits*

This course provides students with detailed understanding of the structure of law enforcement training in the U.S. and issues relating to training management. Students are also familiarized with the principles of adult learning, Bloom's taxonomy of cognitive learning and learning style theories. The purpose of curricula, course outlines, and lesson plans are examined and students participate in preparation of training related documents. Students also study the process of developing and evaluating training programs with the goal of impacting organizational effectiveness. The focus is on the tools for identifying training needs and assessing results. Prerequisites/corequisites: Police Tactical

Seminar (JUST 317) and Managing Patrol Functions (JUST 333) or permission of the instructor.

JUST 324 SERIAL MURDERERS AND THEIR VICTIMS *Fall/Spring, 3 credit hours*

This course covers topics relating to serial murder and the various categories associated with the designation, including healthcare killers, sexual predators, male versus female murderers, team killers, and their respective victims. The student analyzes the issue of serial murder from a global perspective and ways law enforcement officials are attempting to profile and apprehend suspects. Three hours lecture per week. Prerequisites: junior level status in the Criminal Investigation or Criminal Justice: Law Enforcement Leadership program or permission of instructor.

JUST 330 QUESTIONED DOCUMENTS *Fall/Spring, 3 credit hours*

This course includes an examination of techniques used to determine the authenticity of documents through the analysis of handwriting, ink and paper sources, methods of mechanical printing, and recover of erasures, obliterations and alterations. Two hours lecture, two hours lab per week. Prerequisites: junior level status in the Criminal Investigation or Criminal Justice: Law Enforcement Leadership program or permission of instructor.

JUST 333 MANAGING PATROL FUNCTIONS *Fall/Spring, 3 credits*

Through group discussions, role playing activities and situational scenarios, students will learn styles and various elements of the patrol function. Some of the topics include scheduling, budgeting, group process/cooperation, team development, police ethics and integrity. Students will also examine issues related to police corruption and abuse of powers by police personnel while on patrol. Three hours lecture per week. Prerequisites/corequisites: junior level status in Criminal Justice: Law Enforcement Leadership and/or Criminal Investigations or permission of the instructor.

JUST 334 IMPLEMENTING & MANAGING COMMUNITY ORIENTED POLICING PROGRAMS *Fall, 3 credits*

This course is designed to help the future police administrator to understand the strategies necessary for developing positive working relationships with the local community. Students learn to develop communication and problem-solving skills in order to address the problems and concerns of the community. Three hours lecture per week. Prerequisites/corequisites: Introduction to Criminal Justice (JUST 101) and junior level status or instructor's approval.

JUST 335 CRIMINAL JUSTICE AGENCY MANAGEMENT *Fall/Spring, 3 credits*

Description, analysis, solution, and synthesis of contemporary management problems in a criminal justice organization; presentation and exemplary

implementation of management concepts significant to criminal justice organizations; review of case studies for management problem recognition; the study of operational systems; analysis of the role of supervisors and managers. Three hours lecture per week. Prerequisites/corequisites: junior level status in the Criminal Investigation or Criminal Justice: Law Enforcement Leadership program or permission of instructor.

JUST 340 LEGAL ISSUES OF THE PENAL SYSTEMS *Fall/Spring, 3 credit hours*

Students examine problems and issues faced by incarcerated persons within the American penal system. Course topics include: history of confinement as punishment, issues of visitation, religion, legal assistance, prison discipline, rehabilitation, and the civil and criminal liabilities of corrections officials. Three hours lecture per week. Prerequisites: Introduction to Criminal Justice (JUST 101) and Correctional Philosophy (JUST 105) or permission of instructor.

JUST 345 COMPARATIVE JUSTICE SYSTEMS *Fall/Spring, 3 credit hours*

This course is an examination of crime as a world problem, consideration of the different ways justice systems are organized, comparison of the rights of offenders and an analysis of substantive and procedural law in different legal traditions, and an examination of multi-national efforts to address specific trans-border criminal activity. Similarities and dissimilarities between urban and rural criminal justice are examined in the context of culture and social structure. Three hours lecture per week. Prerequisites: Introduction to Government (POLS 101) or Introduction to Criminal Justice (JUST 101), junior level status, or permission of instructor.

JUST 350 FAMILY VICTIMIZATION *Fall/Spring, 3 credit hours*

A study of the various issues involved in family victimization. Victimology, as well as the study of offenders, will be central themes while studying child abuse, spouse abuse, and abuse of the elderly. Three hours lecture per week. Prerequisites: Introduction to Criminal Justice (JUST 101), junior level status, or permission of instructor.

JUST/CITA 365 DIGITAL FORENSIC ANALYSIS *Fall/Spring/Summer, 3 credit hours*

This course is designed to prepare the student to complete forensic analysis of digital media and to understand the process and technical challenges of internet investigations. The course looks specifically at how to obtain evidence from digital media, how to process network messages and logs while preserving the evidentiary chain, and the legal aspects of the search and seizure of digital media and related equipment and information. Two hours lecture and two hours laboratory per week. Prerequisites: Operating System Fundamentals (CITA 171) or permission of instructor.

JUST 406 CRIME SCENE INVESTIGATION *Fall, 3 credits hours*

This course emphasizes crime scene processing

Course Descriptions: CRIMINAL JUSTICE, LEGAL STUDIES

and investigation including crime scene search principles, photography, descriptive writing, recognition of physical evidence, methods for collection and preservation of evidence, sketching techniques and methods of transportation or submission of evidence for laboratory analysis. Two hours lecture and two hours laboratory per week. Prerequisites: senior level status in Criminal Investigations program or permission of instructor.

JUST 408 **THE INVESTIGATION OF DEATH** *Fall, 3 credit hours*

This course is a comprehensive study of death investigations including the first responding officer's duties, the investigation at the scene, detectives' duties, case management, manners and modes of death, and identifying suspects. The course also presents recent statistics and trends related to murder. Two hours lecture and two hours laboratory per week. Prerequisites: senior level status in Criminal Investigations program or permission of instructor.

JUST 410 **CLANDESTINE GRAVES** *Fall/Spring, 3 credit hours*

This course presents students with the theories and practices of locating clandestine graves. Lectures address grave assessments, the use of experts, evidence recognition and preservation, and case studies. Labs will include grave location, excavation, and recovery techniques. Two hours lecture and two hours laboratory per week. Prerequisites: senior level status in Criminal Investigations program or permission of instructor.

JUST 429 **INTRODUCTION TO CULMINATING EXPERIENCE SEMINAR** *Fall/Spring, 1 credit hour*

This course is the precursor to the senior culminating experience for seniors in either the Criminal Investigations or Criminal Justice: Law Enforcement Leadership Bachelor's program. Students meet on a weekly basis with faculty to discuss resume preparation, job interviewing, locating and establishing internships, and internship requirements. This course is a prerequisite to JUST430, Culminating Experience in Criminal Justice. One hour lecture per week. Prerequisites: senior level status in either the Criminal Investigations or Criminal Justice: Law Enforcement Leadership program or permission of instructor.

JUST 430 **CULMINATING EXPERIENCE IN CRIMINAL JUSTICE** *Fall/Spring, 3-15 credit hours*

This internship is an academic program which integrates classroom work and practical experience with cooperating law enforcement or law enforcement related agencies. The internship allows seniors the opportunity to apply classroom learning in a related law enforcement environment. It is a structured field experience in which an intern acquires and applies knowledge and skills, while working in a responsible role. Working with a supervisor, the student will perform prescribed work within an administrative or operational setting. The internship will be tailored to the individual student's career interests and the needs

of the supervising organization. Internship assignments and activities may include, but not be limited to, information gathering, research, data analysis, planning, organization, implementation, evaluation, and other tasks and responsibilities deemed necessary. 40 hours per week per credit hour. Prerequisite: All required Criminal Investigation or Criminal Justice: Law Enforcement Leadership curriculum courses or the permission of the department chair.

JUST 435 **SENIOR PROJECT** *Fall/Spring 3-15 credit hours*

This course is an alternative to JUST 430 for students who do not wish to complete a 15 hour internship. Students in the course complete a series of faculty-directed projects that address issues in the field of criminal justice. Prerequisite: Senior status in Criminal Investigation program or permission of the department chair.

JUST 449 **CURRENT ISSUES IN LAW ENFORCEMENT** *Fall Semester, 3 credit hours*

This course identifies current and emerging issues that may have an impact on a police manager. Students will integrate concepts such as, ethical conduct, morality, violations of civil liberties, political correctness and corruption in law enforcement. Current U.S. Supreme Court decision and opinions, federal and state mandates affecting agency policies and procedures, and community activism and involvement will be used to help students evaluate their decisions. Prerequisites/corequisites: Introduction to Criminal Justice (JUST 101) and junior level status or permission of instructor.

JUST 291-295, 391-395, OR 491-495 **SPECIAL TOPICS IN CRIMINAL JUSTICE** *Fall/Spring, 1-4 credit hours*

Special Topics in Criminal Justice will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available.

LEST 101 **THE AMERICAN LEGAL SYSTEM** *Fall/Spring, 3 credit hours*

A general overview of the American legal system, including federal and state court structures, the roles and responsibilities of various participants in the legal process, and the progress of civil and criminal cases through the courts. Three hours lecture per week.

LEST 310 **LEGAL RESEARCH** *Spring, 3 credit hours*

An overview of the sources of law in the American system and specific instruction in finding and analyzing the sources needed to answer legal questions, including case law, statutes, administrative law, and secondary sources. Three hours lecture per week. Prerequisites: Successful completion of Expository Writing (ENGL 101) or Oral & Written Expression (ENGL 102), and Introduction to Information Technology (CITA 110) or its equivalent, or permission of instructor.

LEST 330 **LEGAL WRITING** *Spring, 3 credit hours*

Instruction covers writing documents commonly used in a legal setting and in analyzing and citing the sources needed to answer legal questions, including case law, statutes, administrative law, and secondary sources. Three hours lecture per week. Prerequisites: Business Communications (BSAD 200), Legal Research (LEST 310), or permission of instructor. This is a writing intensive course.

LEST 350 **LITIGATION** *Fall/Spring, 3 credit hours*

Introduces students to substantive and procedural requirements for and philosophical underpinnings of civil litigation in state and federal courts, at both the trial and appellate levels. Three hours lecture per week. Prerequisites: The American Legal System (LEST 101), Business Law II (BSAD 202), or permission of instructor.

LEST 360 **FAMILY LAW** *Fall/Spring, 3 credit hours*

Students will explore the core procedural and substantive concepts of family law, including legal aspects of adult family relationships and the law relating to the lives of children. Students will learn how family law principles are applied in a legal practice setting. Three lecture hours per week. Prerequisites: The American Legal System (LEST 101), Business Law II (BSAD 202), or permission of instructor.

LEST 370 **REAL PROPERTY** *Fall/Spring, 3 credit hours*

Students will examine the law of real property as it relates to real estate transactions, landlord tenant relationships, and real property disputes. Students will learn how real estate transactions are completed in a legal practice setting. Three hours of lecture per week. Prerequisites: The American Legal System (LEST 101), Business Law II (BSAD 202), or permission of instructor.

LEST 380 **WILLS, TRUSTS, & ESTATES** *Fall/Spring, 3 credit hours*

Students explore the planning and preparation of asset transfers pre-mortem and post-mortem as well as lifetime planning tools commonly associated with trusts and estates. Students learn how attorneys assist their clients to achieve their property transfer and lifetime personal planning goals through preparing wills, trusts and related documents and examine the tax considerations involved in the planning process. Students study the probate process in depth with an emphasis on the client interview process and preparation of legal documents. Three hours of lecture per week. Prerequisites: Legal Research (LEST 310) or junior status and approval of the instructor.

LEST 429 **ORIENTATION TO CULMINATING EXPERIENCE IN LEGAL STUDIES** *Fall/Spring, 1 credit hour*

This course is intended as the precursor to the

Course Descriptions: LEGAL STUDIES, PRACTICAL NURSING, MATHEMATICS

senior culminating experience in the Legal Studies (LEST) program. Seniors will meet with faculty on a weekly basis to discuss resume preparation, job interviewing techniques, on-the-job training, identifying and securing internships, internship requirements, and performance assessment/evaluation. This course is a prerequisite to Legal Studies Internship (LEST 480). Prerequisite: senior level status in the Legal Studies program or permission of instructor.

LEST 449 **ADVANCED LEGAL WRITING** *Spring, 3 credit hours*

Builds on skills acquired in Legal Writing to prepare students for writing more complex types of legal documents. Students will analyze, cite, and find the sources needed to answer legal questions, including case law, statutes, administrative law, and secondary sources. Three hours lecture per week. Prerequisite: Legal Writing (LEST 330) or permission of instructor.

LEST 480 **LEGAL STUDIES INTERNSHIP** *Fall/Spring, 15 credit hours*

The Legal Studies Internship integrates classroom work and practical experience with cooperating businesses or agencies. The Internship allows seniors the opportunity to apply classroom learning in a legal or law enforcement setting. It is a structured field experience in which an intern, under the guidance of a supervisor, acquires and applies knowledge and skills while working in a responsible role. The internship will be tailored to the individual student's career interests and the needs of the supervising organization. Internship assignments and activities may include, but not be limited to, information gathering, research, drafting of documents, office management, and other tasks and responsibilities deemed necessary. Prerequisites: senior level status in Legal Studies and all required courses must be completed before participating in the Internship. Students need permission of the program director or dean.

LEST 485 **LEGAL STUDIES SENIOR PROJECT** *Fall/Spring, 3-15 credit hours*

This course is an alternative to the Legal Studies Internship. It is designed for students who are unable to complete a 15-credit Internship. Students will complete a senior research project specifically addressing issues under the umbrella of legal studies. Under the guidance of a faculty mentor, the student will submit a research proposal, conduct research, prepare a thesis style report, and present a defense to a thesis committee. 37.5 project hours per credit hour. Prerequisites: Internship Orientation (LEST 429) and senior status in the Legal Studies program, or permission of the program director.

LPNC 100 **DRUG DOSAGE CALCULATIONS AND PHARMACOLOGY** *Fall, 3 credit hours*

This course introduces the principles of drug dosage calculations and pharmacology. Various drug classifications and their effects on the body are examined. Emphasis is placed on use of the nursing process in drug administration. Three hours lecture per week. Prerequisite: Beginning Algebra (MATH 100) or high

school equivalent or permission of instructor. Practical Nursing Certificate Majors only.

LPNC 101 **PRACTICAL NURSING FUNDAMENTALS** *Fall, 8 credit hours*

This course examines the evolution of nursing including current trends, and introduces the health care delivery system to the student. Communication techniques, including documentation, are explored. Legal and ethical considerations and the role of the LPN within healthcare are examined. Students will be encouraged to utilize the nursing process and critical thinking in providing nursing care to clients who are at various points on the health illness continuum. In lab students will develop skills fundamental to the practice of nursing. Lab and theoretical content will be applied in the long-term care setting. A final grade of "C" or better is required to progress to the LPNC 102 and 103. Three hours lecture, three hours laboratory, twelve hours clinical per week. Corequisites: Human Anatomy and Physiology I (BIOL 217), Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) or permission of instructor. Practical Nursing Certificate Majors only.

LPNC 102 **PRACTICAL NURSING: SPECIALTY POPULATIONS** *Spring, 3 credit hours*

This course introduces students to assessment and nursing care concepts focusing on maternity, newborn, pediatric, and mentally ill clients. The nursing process and critical thinking skills are utilized to adapt nursing concepts and procedures to these special populations. Three hours lecture per week. Prerequisites: Drug Dosage Calculations and Pharmacology (LPNC 100), Practical Nursing Fundamentals (LPNC 101); corequisite: Practical Nursing: Medical-Surgical Nursing (LPNC 103); or permission of instructor. Practical Nursing Certificate Majors only.

LPNC 103 **PRACTICAL NURSING: MEDICAL-SURGICAL NURSING** *Spring, 8 credit hours*

Students will utilize critical thinking and the nursing process in learning about fundamental disease processes and the LPN's role in prevention of illness, treatment of disease, and the restoration of health in the adult client. Concepts related to safety, emotional support, communication, client teaching, and pharmacology are integrated throughout the course. Students utilize the nursing laboratory to enhance their psychomotor and critical thinking skills in practicing advanced nursing skills. Clinical experiences provide opportunities for students to apply theory/lab in the medical-surgical units of acute care hospitals. Three hours lecture, three hours laboratory, twelve hours clinical per week. Prerequisite: PN Fundamentals (LPNC 101); corequisite: Practical Nursing: Specialty Populations (LPNC 102); or permission of instructor. Practical Nursing Certificate Majors only.

MATH 099 **FUNDAMENTALS OF APPLIED MATHEMATICS** *Fall, 3 imputed credit hours*

The course connects mathematical concepts and

procedures to real-life applications relevant to a variety of technical trade fields. Topics include: a review of fundamental arithmetic concepts, order of operations, measurement and conversions, ratio and proportion, signed numbers, exponents and radicals, estimation, and an introduction to algebra. For students with no algebra background or for those receiving less than 75 on the New York State Math A or Integrated Algebra Regents or equivalent examination, or permission of instructor. Cannot be taken for credit by students with credit in Beginning Algebra (MATH 100). Three hours lecture per week.

MATH 100 **BEGINNING ALGEBRA** *Fall/Spring, 3 equivalent credits*

This course is designed to prepare the student for Intermediate Algebra (MATH106). It assumes a limited algebra background at the secondary level. Topics include: a review of arithmetic operations, signed numbers, exponents, basic geometry concepts (such as angle measure, area and volume formulas), operations with polynomials, solving linear equations, introduction to graphing, and elementary word problems. For students with a limited algebra background or for those receiving less than 75 on the New York State Math A or Integrated Algebra Regents or equivalent examination, or permission of instructor. Cannot be taken for credit by students with credit in Fundamentals of Applied Mathematics (MATH 099). Three hours lecture per week.

MATH 101 **APPLIED COLLEGE MATHEMATICS** *Spring, 3 credit hours*

This course is designed to prepare students for success in technical and pre-engineering technology programs. It assumes an algebraic background at an introductory level. The course will connect mathematical concepts and procedures to real-life applications relevant to a variety of technical trade fields. Topics include: an introduction to algebra, practical plane geometry, solid figures, angle measurement in degrees and radians, trigonometric ratios, law of sines and cosines, solving systems of equations graphically and algebraically, and solving quadratic equations. Applications using algebra concepts are stressed in this course. Three hours lecture per week. Prerequisite: Fundamentals of Applied Mathematics (MATH 099) with a grade of C or better, or New York State Math A or Integrated Algebra Regents or equivalent examination with a grade of 75 or above, or permission of instructor. Cannot be taken for credit by students with credit in Intermediate Algebra (MATH 106).

MATH 106 **INTERMEDIATE ALGEBRA** *Fall/Spring, 3 credit hours*

This course reviews and builds on the basic, fundamental concepts of algebra, which are required in many other courses and areas of study. Topics include: a review of fundamental concepts, first degree equations and inequalities, graphing and systems of equations, rational expressions, factoring, exponents and radicals, quadratic equations. Three hours lecture per week. Prerequisite: Beginning Algebra (MATH 100) with a grade of C or better, or New York State Math A or Integrated Math Regents or equivalent examination with a grade of 75 or above, or permission of

Course Descriptions: MATHEMATICS

instructor. Cannot be taken for credit by students with credit in Applied College Mathematics (MATH 101).

MATH 108

MATH OF FINANCE

Fall/Spring, 3 credit hours

A study of the applications of Mathematics to topics in finance. Topics include: percentages, percents of change, markup and markdown, simple interest, bank discount, compound interest, types of annuities, problem solving, consumer credit and depreciation. Three hours lecture per week. Prerequisite: Intermediate Algebra (MATH 106) with a grade of C or better, or permission of instructor.

MATH 111

SURVEY OF MATHEMATICS

Fall/Spring, 3 credit hours

GER 1

A study of various mathematical topics including an introduction to quantitative reasoning skills, truth table logic, sets, probability, geometry or matrices and linear programming (dependent on demand). This course is designed for non-technical oriented students. It is appropriate for students in liberal arts. Three hour lecture per week. Prerequisite: Intermediate Algebra (MATH 106) with a grade of C or better, or two (2) high school regents math courses with a grade of 75 or above on the second New York State Regents mathematics examinations, or permission of instructor.

MATH 115

MATHEMATICS FOR ELEMENTARY TEACHERS I

Fall/Spring, 3 credit hours

The study of the development, meaning, and representations of numeration systems, operations on whole numbers, number theory and the real number system. The focus of the course will be on mathematical representations for K-8 topics via problem solving. This course is only open to students enrolled in the elementary education transfer program. The majority of the course will be activity-based (exploration of topics through problem solving activities). Three hours lecture per week. Prerequisite: Intermediate Algebra (MATH 106) with a grade of C or better, or two (2) high school regents math courses with a grade of 75 or above on the second New York State Regents mathematics examinations, or permission of instructor.

MATH 116

MATHEMATICS FOR ELEMENTARY TEACHERS II

Fall/Spring, 3 credit hours

GER 1

The study of the development, meaning, and representations of statistics, patterns and functions, concepts of geometry, and measurement of two- and three-dimensional figures. The focus of the course will be on the construction of mathematical representations for K-8 topics via problem solving. This course is only open to students enrolled in the elementary education transfer program. The majority of the course will be activity-based (exploration of topics through problem solving activities.) Three hours per week. Prerequisite: Mathematics for Elementary Teachers I (Math 115) with a grade of C or better, or permission of instructor.

MATH 121

COLLEGE ALGEBRA

Fall/Spring, 4 credit hours

GER 1

This course provides basic algebraic concepts and an introduction to trigonometric and logarithmic functions. Emphasis is placed on equations and inequalities; polynomials, rational, exponential and logarithmic functions; and graphing and data analysis including modeling and linear regression. Additional topics include complex numbers; radical functions; right triangle trigonometry; systems of equations; and elementary transcendental functions. Four hours lecture per week. Prerequisite: Intermediate Algebra (MATH 106) with a grade of C or better, or two (2) high school regents math courses with a grade of 75 or above on the second New York State Regents mathematics examinations, or permission of instructor. Cannot be taken for credit by students with credit in Pre-Calculus Algebra (MATH 123).

MATH 122

BASIC CALCULUS

Fall/Spring, 4 credit hours

GER 1

This course is an intuitive introduction to the Calculus. Topics include: review of functions; analytical geometry of the line, properties of limits; the derivative with applications; trigonometric and other transcendental functions; and integrals with applications. Selected additional topics will be offered, as time permits, at the discretion of instructor. Four hours lecture per week. Prerequisite: College Algebra (MATH 121) with a grade of C or better recommended, or NYS Regents in Algebra2/Trigonometry or Math B with grade of 80 or better plus a fourth year of high school mathematics or permission of instructor.

MATH 123

PRE-CALCULUS ALGEBRA

Spring/Fall, 4 credit hours

GER 1

This course provides an intense study of topics which are fundamental to the study of Calculus. Emphasis is placed on functions and their graphs with special attention to polynomial, rational, exponential, logarithmic and trigonometric functions, and analytic trigonometry. Additional topics include complex numbers; systems of equations and inequalities; trigonometric identities; and trigonometric applications. Four hours lecture per week. Prerequisite: Intermediate Algebra (MATH 106) with a grade of C or better, or 2 high school regents math courses with a grade of 75 or above on the second New York State Regents mathematics examinations, or permission of instructor. Cannot be taken for credit by students with credit in College Algebra (MATH 121)

MATH 131

COLLEGE TRIGONOMETRY

Spring, 3 credit hours

GER 1

This course is designed for those students who lack the trigonometry skills needed to perform successfully in Calculus I. Topics include: angle measurement; right triangle trigonometry; trigonometric identities; trigonometric equations; graphs of trigonometric functions; inverse trigonometric functions; oblique triangles; and exponential and logarithmic functions. Three hours lecture per week. Prerequisite: College Algebra (MATH121) with a grade of C or better, or 3 years of high school mathematics with a grade of 80 or above on the third New York State Regents

mathematics examination, or permission of instructor.

MATH 135

TECHNICAL MATH I

Fall, 4 credit hours

GER 1

This course is the first of a two-semester sequence of intermediate algebra and trigonometry with technical applications. Topics include: review of the fundamental concepts of algebra, units of measurement and approximate numbers, functions and graphs, trigonometry functions, vectors, complex numbers, systems of linear equations, determinants, factoring, rational expressions, quadratics, geometry, (areas and perimeters of common plane figures, volumes and surfaces of common solids). The TI-84 Plus graphing calculator in conjunction with the laptop may be used throughout the course. Four hours lecture per week. Prerequisite: Applied College Mathematics (MATH 101) with a grade of C or better, or 2 high school regents math courses with a grade of 75 or above on the second New York State Regents mathematics examinations, or permission of instructor, or individuals enrolled in the Verizon Next Step program.

MATH 136

TECHNICAL MATH II

Fall and Spring, 4 credit hours

This course is the second of a two-semester sequence of intermediate algebra and trigonometry with technical applications. Topics include: Review of the graphs of the sine and cosine function, review of complex numbers and their applications, exponents and radicals, exponential and logarithmic functions, ratio, proportion and variation, oblique triangles, inequalities, introduction to statistics and an intuitive approach to calculus. The TI-84 Plus graphing calculator in conjunction with the laptop may be used throughout the course. Four hours lecture per week. Prerequisites/corequisites: Technical Math I (MATH 135) with a grade of C or better, or permission of instructor.

MATH 141

STATISTICS

Fall/Spring, 3 credit hours

GER 1

This course is an introduction to the standard methods of descriptive statistics, probability, and inferential statistics. Topics include: organization and presentation of data, descriptive measures of data, linear correlation and regression analysis, probability, probability distributions including binomial distributions, normal distributions, Students t-distributions, and Chi-square distributions, estimation of parameters and hypothesis testing. Three hours lecture per week. Prerequisite: College Algebra (MATH 121), Survey of Mathematics (MATH 111), or Mathematics for Elementary Teachers II (MATH 116) with a grade of C or better, or 3 years of high school mathematics with a grade of 80 or above on the third New York State Regents mathematics examination, or permission of instructor.

MATH 161

CALCULUS I

Fall, 4 credit hours

GER 1

This course is the first of a three-semester sequence of Calculus courses developed for students in Engineering Science who expect to transfer to a four-year engineering college upon completion of the program.

Course Descriptions: MATHEMATICS, MECHANICAL

Other qualified students may also take this sequence. Topics include: quick review of functions and graphs, limit and continuity; the derivative and its properties, differentiation of algebraic and transcendental functions, curve sketching; related rates, applied extrema problems; other applications of differentiation, numerical methods, and antidifferentiation. Four hours lecture per week. Prerequisite: Pre-Calculus Algebra (MATH 123) or College Trigonometry (MATH 131) with a grade of C or better, or 3 years of high school mathematics with a grade of 80 or above on the third New York State Regents mathematics examination, or permission of instructor.

MATH 162 **CALCULUS II** *Spring, 4 credit hours*

This course is the second of a three-semester sequence in Calculus which has been designed for students in Engineering Science. Other qualified students may also take this course. Topics include: differentials; definite integrals and their applications; integration of exponential, logarithmic, trigonometric, and inverse trigonometric functions; techniques of integration; series; parametric equations and polar coordinates. Four hours lecture per week. Prerequisite: Calculus I (MATH 161) with a grade of C or better recommended or permission of instructor.

MATH 263 **CALCULUS III** *Fall, 4 credits*

This course is the third of a three-semester sequence of Calculus courses developed for students in Engineering Science who expect to transfer to an engineering program at a four-year institution upon graduation. Other qualified students may also take this course. Included are topics from analytic geometry, plane curves and polar coordinates, vectors, vector valued functions, and topics from differential geometry, partial differentiation, multiple integrals, along with selected topics from vector calculus. Four hours lecture per week. Prerequisite: Calculus II (MATH 162) with a grade of C or better or permission of instructor.

MATH 264 **DIFFERENTIAL EQUATIONS** *Spring, 3 credit hours*

A course in Ordinary Differential Equations, which is required of the students in the Engineering Science curriculum. It may be taken by qualified students in other curriculums who plan to transfer Mathematics credits to four-year institutions. Topics include: first-order differential equations, higher-order differential equations with constant and variable coefficients, applications of first and second order linear equations, Laplace transforms, systems of linear differential equations, and numerical methods for ordinary differential equations (optional). Three hours lecture per week. Prerequisite: Calculus II (MATH 162) with a grade of C or better or permission of instructor.

MATH 341 **STATISTICS II** *TBD, 3 credit hours*

Includes confidence intervals and hypothesis testing for population proportions, variance and standard deviation; hypothesis testing two samples for differences between means; correlation and regression,

including multiple regression; finding prediction intervals and hypothesis tests for the linear correlation coefficient; Chi-square tests and the F-distribution; non-parametric tests. Three hours lecture per week. Prerequisites: Statistics (MATH 141) with a grade of C or better, or permission of instructor.

MATH 351 **DISCRETE MATHEMATICS** *Fall/Spring, 3 credit hours*

This course studies the basic tools and techniques of discrete mathematics and their applications. The topics include sets, logic, proofs, functions and relations, algorithms, elementary number theory, counting methods, discrete probability, pigeonhole principle, recurrence relations, introduction to graph theory and Boolean algebras. Three hours of lecture per week. Prerequisites: College Algebra (MATH 121) or Pre-Calculus Algebra (MATH 123) with a grade of C or better, or permission of instructor.

MATH 361 **LINEAR ALGEBRA** *Spring/Fall, 3 credit hours*

This course is an introduction to the theory of finite dimensional abstract vector spaces and linear transformations. Topics include: systems of linear equations, matrices, matrix algebra, determinants and inverses, linear combinations and linear independence, abstract vector spaces, change of basis and coordinates, inner product spaces, orthonormal bases. We also consider linear transformations, isomorphisms, matrix representation of linear maps, eigenvalues and eigenvectors, diagonalization and similarity. The applications include computer graphics, Markov chains, chemistry, linear regression, network flow, electrical circuits, and differential equations. Three hours of lecture per week. Prerequisites: Calculus II (MATH 162) with a grade of C or better or permission of the instructor.

MATH 371 **GRAPH THEORY** *Spring/Fall, 3 credit hours*

This course is an introduction to the basic concepts of graph theory. Common classes of graphs such as paths, trees and cycles are analyzed. We also consider connectivity, traversability, and conditions for planarity. Applications will be given to chemistry, engineering and computer science. Map colorings (including the famous four color theorem) will also be considered. Three hours of lecture per week. Prerequisites: Calculus II (MATH 162) with a grade of C or better or permission of the instructor.

MATH 291-295, 391-395, OR 491-495 **SPECIAL TOPICS IN MATHEMATICS** *Fall/Spring, 1-4 credit hours*

Individual courses of instruction of variable credit (1-4 credits) may be offered each semester. These courses are designed to expand on topics in specific areas of mathematics.

MECH 111 **COMPUTER DRAFTING** *Fall, 3 credit hours*

This course introduces the student to using the computer to produce engineering (mechanical) drawings. In addition to learning the "AUTOCAD"

software to create the entities, other topics covered in the course include: orthographic projection, national drafting standards and conventions, applied geometry, sectioning as well as detail and assembly drawings. Instruction also includes freehand sketching. One hour lecture, four hours laboratory per week.

MECH 112 **ADVANCED COMPUTER DRAFTING** *Spring, 3 credit hours*

A continuation of Computer Drafting (MECH 111) wherein major emphasis is placed on the topics of dimensioning, tolerancing, gears, keys and key seats, assembly drawings, and detail drawings. Computer-aided design, systems, concepts, along with standards, will be emphasized. One hour lecture, four hours laboratory per week. Prerequisite: Computer Drafting (MECH 111) or permission of instructor.

MECH 117 **COMPUTER DRAFTING FOR NON-TECHNICIANS** *Fall, 2 credit hours*

A basic computer-oriented drawing course designed for people with little or no engineering background. Students will learn how to create both two dimensional and three dimensional (pictorial) drawings utilizing a computer software package. Upon completion, students will be able to draw and interpret standard working drawings found in business and industry. One hour lecture, two hours laboratory per week.

MECH 118 **ENGINEERING DRAWING** *Spring, 2 credit hours*

Fundamentals of technical drawing with instruments, freehand orthographic and pictorial sketching, lettering, drafting standards and conventional practices, orthographic drawings, oblique and isometric drawings, sectioning, auxiliary views, intersections and surface developments. Five hours laboratory per week.

MECH 121 **MANUFACTURING PROCESSES I** *Fall/Spring, 3 credit hours*

This course provides an overview of material removal, change in form, change in condition, and heat treatment processes. The student begins with a fundamental understanding of machine tools theory and practice. Instruction includes precision layout and measurement, lathe operations and tooling, milling operations and tooling, drills, reamers, and drilling machines. Instruction involves the selection and calculation of proper cutting speeds and feeds for processes involving different materials. Instruction also includes an investigation to the variety of casting processes, products produced through each process and common defects found. Students further investigate material properties and how change can occur through processing and heat treatments. The laboratory provides the opportunity to apply the material from lecture through the hands on operation of the tooling and equipment. Two hours lecture, three hours laboratory per week.

Course Descriptions: MECHANICAL

MECH 124 **MACHINE TOOLS** *Spring, 3 credit hours*

A basic course in machine shop theory and practice. Includes theory and related information pertaining to precision and comparative measurement file, hacksaws, indexing, twist drills, cutting speeds, and screw threads. Provides an opportunity for actual practice in the operation of basic machine tools such as the lathe, milling machine, drill presses, band saw and sand blasting machine. Includes shop safety, layout and measurement and the use of basic hand tools. Two hours lecture, three hours laboratory per week.

MECH 128 **ELECTROMECHANICAL TECHNOLOGY** *Spring, 3 credit hours*

This course provides the knowledge base needed to understand the principles, concepts, and applications of electro-mechanics. It presents problem solving techniques that are critical for troubleshooting situations. Topics covered include: Nature of motion, simple and compound machines, torque, power transmission, motion devices, electric circuits, electromagnetic circuits and devices, and maintenance procedure for electrical and mechanical machines. Two hours lecture and two hours laboratory per week. Prerequisites: College Algebra (MATH 121), College Physics I and Lab (PHYS 121/125).

MECH 191 **MECHANICAL DRAFTING I** *Fall, 7 credit hours*

This course emphasizes graphic communications and the fundamentals of object definition. Plane geometry constructions are utilized to create orthographic projections, auxiliaries and sectional representations. Isometric, oblique and perspective projections are introduced, as are mechanical and exploded assemblies. Architectural and conventional dimensioning technique are explored. There is use of written tolerances (including geometric and true position) and fastener catalogues. Parallel references are provided in each of these topics using computer-aided drafting with AutoCAD. Use of Windows and word processing will be introduced. A separate emphasis is made in mechanical blueprint reading, and in checking drawings. Certificate/AAS Elective Credit Only. Three hours lecture, eight hours laboratory per week.

MECH 192 **MECHANICAL DRAFTING II** *Spring, 7 credit hours*

This course emphasizes finding graphic solutions to geometric problems and an introduction to principal drafting specializations. Assignments are provided in classic descriptive geometry and their utilization in intersections, surface development, and vectors. The unique capabilities of CAD equipment requires different methods for these solutions which are also examined. Introductory assignments are given in mechanical detailing, contour mapping, structural detailing, electrical-piping-fluid power schematics, tooling fixture development, graphs and linkage motion layouts (kinematics). Certificate/AAS Elective Credit Only. Three hours lecture, eight hours laboratory per week.

MECH 220 **ENGINEERING MATERIALS** *Spring, 3 credit hours*

A study of the wide spectrum of materials used in manufacturing of discrete parts and machines. Material structure, characteristics, mechanical properties and applications will be stressed for ferrous and non-ferrous metals, plastics, and composites. Two hours lecture, three hours laboratory per week. Prerequisites: College Algebra (MATH 121) and College Physics I (PHYS 121) or permission of instructor.

MECH 222 **MANUFACTURING PROCESSES II** *Spring, 2 credit hours*

A continuation of Manufacturing Processes I. Includes forging, sawing and cutting processes, grinding operations, cutting tools and fluids, powder metallurgy and non-traditional machining processes. Process planning and determining the equipment to produce parts will lead to a better understanding of different manufacturing processes. Students will learn the fundamentals required to setup, operate and program CNC lathes and milling machines. A major emphasis is placed on the term project that requires each student to research a manufacturing process for the purpose of giving an oral presentation to the class explaining the process. The overall project requires each student submit an outline of their presentation, present their material to the class and submit a formal report to the instructor. One hour lecture, two hours laboratory per week. Prerequisite: Manufacturing Processes I (MECH 121) or permission of instructor.

MECH 223 **INTRODUCTION TO CNC** *Fall, 3 credit hours*

A course designed to introduce students to the capabilities of CNC machine tools used in industry, to teach students the fundamentals in programming CNC lathes and milling machines, to provide students the opportunity to setup and operate CNC equipment and to experience the use of CAD/CAM technology. Two hours lecture, three hours laboratory per week. Prerequisite: Manufacturing Processes I (MECH 121) or permission of instructor.

MECH 224 **TOOL DESIGN** *Spring, 3 credit hours*

Theory design and drawing of tools used in mass production. Cutters, gauges, punches and dies, jigs and fixtures. Introduction to commercial tool steels, nonmetallic tooling materials and process intent of geometric tolerances. Emphasis on the use of component catalogs. One hour lecture, four hours laboratory per week. Prerequisites: Manufacturing Processes I (MECH 121), Advanced Computer Drafting (MECH 112) or equivalent or permission of instructor.

MECH 225 **INTRODUCTION TO THERMODYNAMICS** *Spring, 3 credit hours*

Introduction to Thermodynamics will investigate the first and second laws of thermodynamics and the applications to steam cycles and refrigeration. The properties of liquids and gases will be considered in their application to technology. The ideal gas laws will be explored through the mixture of air-water vapor

using the psychometric chart. The energy balance of steam turbines will be evaluated for their efficiencies. The theory of heat transfer will be considered during heat exchange applications. If time permits, the study of the Otto cycle and Diesel cycle will be discussed. Three hours lecture per week. Prerequisites: Physics II and College Algebra (MATH 121) or permission of instructor.

MECH 226 **THERMOFLUIDS LABORATORY** *Spring, 1 credit hour*

The theories of thermodynamics and fluid mechanics will be explored through hands on experimentation. Students will place into practice the theories of fluid mechanics and thermodynamics. These labs will provide emphasis on report preparation and computer-aided data collection and reduction. Two hours laboratory per week. Corequisites: Introduction to Thermodynamics (MECH 225), Fluid Mechanics (MECH 241) or permission of instructor.

MECH 231 **MECHANICAL STRUCTURE LABORATORY** *Fall, 1 credit hour*

This course is designed to complement and supplement the topics in the corequisite course, Structural Mechanics. It will consist primarily of experiments in strength of materials, augmented by occasional lectures. A writing intensive course. Three hours laboratory per week. Prerequisites/corequisites: Structural Mechanics Lecture (CONS 263) or permission of instructor.

MECH 232 **MACHINE DESIGN** *Spring, 4 credit hours*

Design of machine components subjected to static, dynamic and fluctuating loads. Theory includes design of shafts, v-belt and flat belt drives, gear systems and roller chain mechanical transmissions; gears and springs. Laboratory work involves the design of components of a machine design term project. Three hours lecture, two hours laboratory per week. Prerequisites/corequisites: Structural Mechanics Lecture (CONS 263), Basic Calculus (MATH 122), or permission of instructor.

MECH 241 **FLUID MECHANICS** *Spring, 3 credit hours*

This course develops a basic knowledge of fluids under static and dynamic applications. Principles of fluid statics, fluid kinematics, fluid kinetics, and continuity theorem will explore applications in the mechanical industry. Flow rate, pipe sizing and minor losses in piping systems are addressed. Compressible flow and gas dynamics are introduced. Three hours lecture per week.

MECH 251 **QUALITY CONTROL** *Fall, 3 credit hours*

Statistical concepts related to quality control. Theory, construction, and interpretation of control charts in an industrial manufacturing environment. Probability as it relates to acceptance sampling and ISO 9000 quality standards. Two hours lecture, two hours laboratory per week.

Course Descriptions: MECHANICAL, MANUFACTURING

MECH 301 TECHNICAL DYNAMICS *Fall/Spring, 3 credit hours*

Students study the principles of dynamics and the solution of applied engineering problems. Two-dimensional dynamic analysis of particles and rigid bodies are resolved using fundamental analytical methods and computer simulation. Rectilinear, curvilinear, and rotary motion, D'Alembert's principles of work and energy, impulse and momentum, and Three-dimensional kinematics and dynamics are covered. Three hours lecture per week. Prerequisite: Machine Design (MECH 232) or permission of instructor.

MECH 332 INTERMEDIATE MACHINE DESIGN *Fall, 3 credit hours*

This course is a continuation of Machine Design (MECH 232). Design of shafts, keys, couplings and seals provide application to tolerances and fits. The study of bearing types, loads, design life and selection along with fastener selection, machine frames, connection and joints; linear motion, motion control and electric motors and controls used in automated machinery. Three hours lecture per week. Prerequisite: Machine Design (MECH 232) or permission of instructor.

MECH 341 INTERMEDIATE FLUID MECHANICS *Fall/Spring, 3 credit hours*

This course is an in-depth study of fluid mechanics. A development of the Navier-Stokes equations to represent two and three dimensional flow will lead to a clear understanding of fluid dynamics in the real world. Additionally students will analyze motion of time-independent and Rayleigh flow, compressible flow and topics of rotating concentric disc to boundary layer situations of airfoils. The introduction of similitude and dimensional analysis will prepare students for further topics related to fluid mechanics. Three hours of lecture per week. Prerequisites: College Physics II (PHYS 122) and Basic Calculus (MATH 122) or permission of instructor.

MECH 342 THERMODYNAMICS *Spring, 3 credit hours*

This course will investigate thermal power and its applications using the first and second laws of thermodynamics. The properties of liquids and gases will be considered in their current and emerging applications to energy production. The fuel sources will be discussed for their energy input and output heat values. The efficiency of all energy applications will be explored while evaluating the theory of heat transfer. Applications of the Rankin, Otto, Brayton, and refrigeration cycles will be used in evaluating the energy production of thermal systems. Three hours of lecture per week. Prerequisites: College Physics II (PHYS 122) and Basic Calculus (MATH 122) or Calculus I (MATH 161), or permission of instructor.

MECH 343 HEAT TRANSFER *Fall/Spring, 3 credit hours*

This course explores the various methods of transferring heat from a source to a sink in engineering systems. Topics will focus on the energy balance of a

system. The transport phenomena of heat transfer will be studied in detail, allowing students to internalize these physical principles of conduction, convection, and radiation. Three hours of lecture per week. Prerequisites: College Physics II (PHYS 122) and Basic Calculus (MATH 122) or Calculus I (MATH 161), or permission of instructor.

MECH 351 DESIGN OF EXPERIMENTS *Spring, 3 credit hours*

This course provides methodologies that engineers, technologists, and management personnel need to plan and conduct experiments to quantify cause and effects relationships in complex systems. Designs of experiments test multiple factors at one time determining whether changes to products, processes, and systems are improvements. Students will perform simple comparative experiments isolating known sources of variation; while multiple level factorial designs will allow analysis for variance (ANOVA) to predict models of interactions that optimize a process. Three hours of lecture per week. Prerequisites: Basic Calculus (MATH 122) and Junior level status, or permission of instructor.

MECH 412 VIBRATION AND NOISE CONTROL *Fall/Spring, 3 credit hours*

Provide guidance relevant to design, problem solving and improvement with the measurement and control of noise and vibration as applied to the industrial environment. Students study the source, distribution and measurement of sound waves and vibrations in beams, cylinders, pipe systems, panels and mechanical equipment. Instruction includes methods for dampening noise and vibration. The use of signals generated from noise and vibration as a tool to diagnose the source of the problem and use statistical methods of analysis for determining frequency of service. Three hours of lecture per week. Prerequisites: Statistics (MATH 141), Instrumentation and Controls (MECH 210), Intermediate Fluids (MECH 341).

MECH 416 APPLIED COMPUTATIONAL FLUID DYNAMICS *Fall/Spring, 3 credit hours*

This course introduces the student to modeling and analyzing fluid mechanics problems via the finite difference and finite volume method. Fundamentals of CFD theory, solution, procedures, techniques, and analysis are discussed. Topics include computational grid generation, fluid model setup, convergence and accuracy analysis, data interpretation, model validation and discussion of conclusions. Students will use CFD software to solve various fluid problems. Two hours lectures, two hours laboratory per week. Prerequisites: Intermediate Fluid Mechanics (MECH 341), Differential Equations (MATH 262), or permission of instructor.

MECH 417 APPLIED FINITE ELEMENT METHOD *Fall/Spring, 3 credit hours*

This course introduces the student to modeling and analysis of mechanical systems via the finite element method. Topics include the theory and procedures to design computer models to simulate various

applied mechanical problems, validation of computer models, and interpretation of numerical results, mesh and accuracy analysis, and discussion of conclusions. Students will use FEM software to solve various mechanical and heat transfer problems. Two hours lectures, two hours laboratory per week. Prerequisites: Machine Design (MECH 232), Differential Equations (MATH 262), or permission of instructor.

MECH 477 CAPSTONE PROJECT *Spring, 3 credit hours*

This course provides a learning experience that allows a student to propose, design and implement a project. This could be a study of a problem and solution of specific equipment, new product design, improvement of an existing product, and many others. All projects must be approved by course faculty. A minimum of 120 hours of work is required for this course. Eight hours per week. Prerequisites: Completion of seven semesters of coursework (senior level status) or permission of program director.

MECH 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN MECHANICAL ENGINEERING TECHNOLOGY *Fall/Spring, 1-4 credit hours*

Special topics in Mechanical Engineering Technology will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available. Prerequisite: permission of the instructor.

MFGT 100 MANUFACTURING TOPICS *Fall, 1 credit hour*

This is a freshman course designed for students in the Mechanical Engineering Technology and CAD curriculums. Students will be introduced to the use of computers (E-mail, WWW, spreadsheet, word processing) and will begin to assess the skills necessary for success in their curriculum. A review of fundamental calculator and mathematical functions will lead to students solving introductory engineering technology problems. Problem solving, technical graphing and report writing will prepare students for future course work found in their curriculum. One hour lecture per week.

MFGT 101 INTRODUCTION TO CAD/CAM *Fall/Spring, 1 credit hour*

This is an introductory course which teaches the students how to use modern CAD/CAM software to produce 2D and 3D products. Students will learn about the career opportunities associated with CAD/CAM technology, use an industrial-accepted software to produce parts on CNC milling machines and lathes, develop the perceptual skills required to visualize CAD geometry used in machining 2D and 3D parts, enhance their creativity skills. Three hours lecture per week for five weeks. Prerequisite: Students should be familiar with operation of Microsoft Windows.

MFGT 120 MANUFACTURING MATERIALS *Spring, 3 credit hours*

A study of the wide spectrum of materials used in manufacturing of discrete parts and machines. Mate-

Course Descriptions: MANUFACTURING, MANAGEMENT INFO., POWERSPORTS

rial structure, characteristics, mechanical properties and applications will be stressed for ferrous and non-ferrous metals, plastics, and composites. Two hours lecture, three hour laboratory per week. Prerequisites: College Algebra (MATH 121), General Physics I (PHYS 101), Oral and Written Expression (ENGL 102), or permission of instructor.

MFGT 200

CADD/CAM

Spring, 3 credit hours

Students will study and use the tools associated with manufacturing and automation. They will learn the use of commercially accepted CAD/CAM software to generate computerized models and CNC programs. Touch probes will be used to demonstrate the principles of reverse engineering. Students will learn and practice many major elements associated with manufacturing a product using computer control. Using a team approach, students will design a product, develop the process plan, generate a CNC program and manufacture the product. One hour lecture, four hours laboratory per week. Prerequisites/corequisites: College Algebra (MATH 121), General Physics I (PHYS 101), Computer Drafting (MECH 111), Manufacturing Processes I (MECH 121), Introduction to Computer Numerical Control (MECH 223), or permission of instructor.

MFGT 220

INSTRUMENTATION AND CONTROLS

Fall, 3 credit hours

A course designed to focus on instrumentation and process control used in an industrial environment. Students will gain an understanding of instrumentation utilized in process control, control loop tuning and the use of automatic controls. Students will calibrate and document results to industrial standards for temperature, pressure, level and flow control loops. Students will be introduced to Labview software and interface with data collection hardware. Two hours lecture, two hours laboratory per week. Prerequisite: Electricity (ELEC 261) or permission of instructor.

MFGT 291-295, 391-395, OR 491-495

SPECIAL TOPICS IN MANUFACTURING TECHNOLOGY

Fall/Spring, 1-4 credit hours

Special Topics in Manufacturing Technology will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available. Prerequisite: permission of the instructor.

MINS/CITA 300

MANAGEMENT INFORMATION SYSTEMS

Fall/Spring, 3 credit hours

Students learn the concepts underlying the design, implementation, control, evaluation, and strategic use of modern, computer-based information systems for business data processing, office automation, information reporting, decision-making, and electronic commerce. The major emphasis of the course will be on the managerial and strategic aspects of information technology. Three hours lecture per week. Prerequisites: Introduction to Business (BSAD 100) and 45 semester hours completed or permission of instructor.

MINS/CITA 305

CUSTOMER RELATIONSHIP MANAGEMENT

Fall/Spring, 3 credit hours

This course provides information systems tools for building a customer-focused organization based on customer data and information. The course focuses on using current data to enhance relationships with customers, gathering data for future marketing endeavors and providing strategic guidance to the organization. The course provides insights into customer life-cycle management, customer lifetime value and measuring customer profitability. Three hours lecture per week. Prerequisites/corequisites: Management Information Systems (MINS/CITA 300) or permission of instructor.

MINS/CITA 315

DECISION SUPPORT SYSTEMS

Fall/Spring, 3 credit hours

This course enables the student to turn raw data into information to help an organization's managers make decisions. Students will develop decision making analytical models to provide organizational leaders with potential outcomes and their effects. Students will study the network's role in distributed systems, distributed systems development tools, and distributed systems issues. Students will apply data-mining techniques supporting knowledge-management decisions. Three hours lecture per week. Prerequisites/corequisites: Management Information Systems (MINS/CITA 300) or permission of instructor.

MINS/CITA 320

INTRODUCTION TO DATA MINING

Spring, 3 credit hours

A systematic introduction to the basic principles, applications, techniques and models of data mining including classification, estimation, prediction, affinity grouping, clustering, description and profiling. The emphasis is on various data mining problems and their solutions. Students will also be exposed to a sample of data mining applications. Topics include decision trees, artificial neural networks, nearest neighbor approaches, market basket analysis, and association rules. Three hours lecture per week. Prerequisites/corequisites: Introduction to Database (CITA 104) or Database Systems (CITA 215) and Statistics (MATH 141) or permission of instructor.

MINS/CITA 425

ENTERPRISE RESOURCE PLANNING

Fall/Spring, 3 credit hours

This course provides information systems tools to ensure a comprehensive resource planning system for all functions of businesses. The course will discuss the development and employment of enterprise resource planning for marketing, accounting, supply chain management, and human resources. Content will focus on practical applications of enterprise resource planning to ensure businesses get the greatest returns on information systems investment. Three hours lecture per week. Prerequisites/corequisites: Management Information Systems (MINS/CITA 300) and Junior standing or permission of instructor.

MINS/CITA 430

DATA AND KNOWLEDGE MANAGEMENT

Fall/Spring, 3 credit hours

This course focuses on the development of a knowledge-management system using an organization's tacit and explicit knowledge to execute its strategy. The course explores practices entailed in developing a knowledge infrastructure, managing the interaction of people and technology, valuing knowledge assets, leveraging teams, and transferring knowledge across organizations. Three lecture hours per week. Prerequisites/corequisites: Management Information Systems (MINS/CITA 300) and Junior standing or permission of instructor.

MSPT 101

MOTORSPORTS SERVICE

Fall, 3 credit hours

An introduction to the general theories of systems and maintenance of motorsports vehicles, including motorcycles, snowmobiles, ATV's and personal watercraft.

MSPT 110

ENGINE AND POWER TRANSMISSION SERVICE

Spring, 4 credit hours

This course involves the complete disassembly, inspection, repair and reassembly of modern modular constructed powertrain assemblies. The principles of operations key to high performance, compact engines/transmission assemblies are thoroughly covered. Prerequisite: Motorsports Service (MSPT 101) or permission of instructor.

MSPT 120

FRAME AND SUSPENSION SYSTEMS

Spring, 3 credit hours

This course covers the theory, diagnostic and service procedures used in suspension and frame systems unique to the motorsports arena. Braking and suspension concerns are integrated into frame design theory. Prerequisite: Motorsport Service (MSPT 101) or permission of instructor.

MSPT 130

MARINE PROPULSION

Fall, 2 credit hours

A study of the different types of propulsion systems relative to various types of aquatic craft, including jet and propeller. Theory and construction will be discussed in the context of a one-hour lecture followed by a three-hour working laboratory.

NURS 100

INTRODUCTION TO NURSING

Fall, 1 credit hour

This course provides basic information on the profession of nursing. A historical perspective of the nursing profession is presented, with current and future trends in nursing discussed. An overview of therapeutic communication, stress management, critical thinking, problem solving, data collection and infection control are included. The course also offers opportunity to build drug dosage calculation skills. This course is intended for potential nursing majors. One hour lecture per week. Prerequisites: Beginning Algebra (MATH 100) or equivalent, or permission of instructor.

Course Descriptions: NURSING

NURS 101 **FUNDAMENTALS OF NURSING** *Fall, 6 credit hours*

This course is designed to provide the student with knowledge and skills basic to nursing. This course will enable the student to learn nursing concepts and the nursing process, while introducing nursing roles as provider and manager of care and member of the profession. The nursing laboratory on campus is used to facilitate the transfer of knowledge from the classroom to the clinical setting. Clinical nursing experiences are provided to assist students in applying NURS 101 theory in the long-term care setting. Three hours lecture, three hours laboratory, and six hours clinical per week. NURSING MAJORS ONLY.

NURS 102 **PSYCHIATRIC AND MATERNAL CHILD NURSING** *Spring, 9 credit hours*

This second-level clinical nursing course is designed to assist the student in further developing skills, knowledge, and theories introduced in Fundamentals of Nursing (NURS 101) by challenging students with specialized nursing concepts. The course provides students with opportunities to learn concepts in both maternal/child and mental health nursing. Clinical learning experiences assist student in applying Nursing II concepts with persons at various levels of health and wellness for which nursing interventions are necessary. The nursing laboratory will be used to facilitate the transfer of knowledge from the classroom to the clinical area. Six hours lecture, two hours laboratory, seven hours clinical per week. Prerequisites: A grade of "C" or better in the following courses: Human Anatomy and Physiology I (BIOL 217), Fundamentals of Nursing (NURS 101), Pharmacology I (NURS 103), Nursing Seminar (NURS 105), Introduction to Psychology (PSYC 101), Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), or permission of instructor. NURSING MAJORS ONLY.

NURS 103 **PHARMACOLOGY I** *Fall, 1 credit hour*

This introductory pharmacology course will explore the basic principles surrounding pharmacology. Topics include: medication administration, cultural, legal, and ethical issues related to pharmacology, patient education, reduction of medication errors, and the nursing care involved in administration of drugs used to treat nutritional, eye, and ear disorders. One hour lecture per week, NURSING MAJORS ONLY or permission of instructor.

NURS 104 **PHARMACOLOGY II** *Spring, 1 credit hour*

This pharmacology course will explore the various classifications of drugs, and their associated nursing care, used to treat psychiatric, reproductive, and bone/joint disorders. The course will also examine commonly used drugs during pregnancy, and those used to control pain. Pediatric drug administration will also be discussed. One hour lecture per week. Prerequisites: Pharmacology I (NURS 103), Fundamentals of Nursing (NURS 101), or permission of instructor. NURSING MAJORS ONLY.

NURS 105 **NURSING SEMINAR** *Fall, 1 credit hour*

This nursing course is designed to introduce the student to the concept of critical thinking and ways to improve critical thinking, especially as it relates to nursing. The course will also examine the history and development of the nursing profession and issues faced by the professional nurse in the delivery of care. Students will be required to develop a plan for succeeding in the associate degree nursing program that demonstrates self-reflection and evaluation of individual strengths and weaknesses. One hour lecture per week. ASSOCIATE DEGREE NURSING MAJORS ONLY or permission of the instructor.

NURS 200 **PHARMACOLOGY III** *Fall, 1 credit hours*

This course will explore classifications of drugs used to treat skin, neuromuscular, cancer, blood, respiratory, gastrointestinal, fluid and electrolyte, and blood disorders; and discuss the nursing care associated with these agents. In addition, drugs used to treat viral and bacterial infections will be discussed as well as agents used to modify the human immune system. One hour lecture per week. Prerequisites: Pharmacology II (NURS 104), Psychiatric and Maternal Child Nursing (NURS 102), or permission of instructor. NURSING MAJORS ONLY.

NURS 201 **MEDICAL-SURGICAL NURSING I** *Fall, 10 credit hours*

This medical-surgical nursing course develops knowledge, skills, attitudes, and reflection towards evidence based practice of pediatric and adult clients. Emphasis is placed on identification of high risk groups, assessment of deviation from the normal and nursing/interdisciplinary care. The nursing laboratory on campus is used to facilitate the transfer of knowledge from the classroom to the clinical setting. Clinical nursing experiences are provided to assist students in applying NURS 201 theory in the acute care setting. Six hours lecture, three hours laboratory, and nine hours clinical per week. Prerequisites: A grade of "C" or better in the following: Human Anatomy and Physiology I (BIOL 217), Human Anatomy and Physiology II (BIOL 218), Human Development (PSYC 225) or Child Development (PSYC 220), and Psychiatric and Maternal Child Nursing (NURS 102), Pharmacology II (NURS 104), or permission of instructor. NURSING MAJORS ONLY.

NURS 202 **ADAPTATION NURSING IV** *Fall/Spring, 10 credit hours*

This capstone medical-surgical nursing course enhances the student's critical reflection and dialogue, active questioning of beliefs, values, assumptions, and encourages exploration of new ways of understanding self and others. Students are encouraged to fully and freely engage in dialogue and critical thinking activities that facilitate a deep shift in their ways of thinking, reasoning, and problem solving. Students continue to utilize all skills and competencies necessary to accurately implement the nursing process holistically with diverse client populations. Students achieve their highest levels of potential while preparing for the

graduate role in nursing. Clinical nursing experiences are provided to assist students in applying nursing theory in the hospital and/or community setting(s). Six hours lecture, twelve hours clinical/lab per week. Prerequisites: Medical-Surgical Nursing I (NURS 201) (minimal grade of C), Microbiology (BIOL 209) (minimal grade of C), or permission of instructor. NURSING MAJORS ONLY

NURS 203 **PROFESSIONAL ISSUES AND TRENDS IN NURSING** *Fall/Spring, 3 credit hours*

This writing intensive course is designed to increase the awareness of current issues affecting the nursing profession. This course will examine the health care environment, health care finance, the political process and the nursing profession, nursing theorists and conceptual models of nursing, nursing research, nursing licensure, development of nursing as a profession, legal responsibilities for practice, ethical concerns in nursing practice, management and leadership, bioethical issues in healthcare, and nursing practice areas. Three hours lecture per week. Prerequisites: Medical-Surgical Nursing I (NURS 201), Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102), all with a minimal grade of C, or permission of instructor. NURSING MAJORS ONLY.

NURS 300 **CONCEPTUAL FRAMEWORKS IN NURSING** *Fall, 3 credit hours*

This course examines the historical development and evolution of nursing theory and its interrelationship to research and professional nursing practice. The course includes critical thinking activities used to conceptualize, apply, analyze, and synthesize knowledge related to specific nursing theories and their importance in nursing education, practice, and research. A group project that incorporates the students' knowledge of nursing theory and nursing theorists will be used to demonstrate an understanding of the relevance of theory to practice. Three hours lecture per week. Prerequisites: Students must be enrolled in the RN-BS program and must possess a current, valid license to practice as a Registered Professional nurse or permission of instructor.

NURS/HSMB 301 **PUBLIC HEALTH ISSUES** *Fall, 3 credit hours*

The course begins with an overview of the history and development of public health. The student is then provided with the opportunity to examine the current public health care system. The fundamentals of epidemiology also are covered. Applications to the students' practice settings are explored. Health planning, health promotion, and global health issues are included. Three hours lecture per week. Prerequisites: Microbiology (BIOL 209) and Survey of Mathematics (MATH 111) or Statistics (MATH 141) or permission of instructor.

NURS/HSMB 302 **LEGAL AND ETHICAL ISSUES IN HEALTH CARE** *Spring, 3 credit hours*

The student will examine the legal and ethical

Course Descriptions: NURSING, PHYS. ED., PHILOSOPHY, PHYSICAL SCIENCE

issues related to health care as they impact the health services managers involved in health care decision making. A variety of commonly experienced legal situations and ethical dilemmas will be discussed, including professional liability, patients' rights, abortion, AIDS care, informed consent, organ transplantation, health care delivery and resource allocation and issues related to death and dying and funeral home care. Lecture, role playing, case study evaluation and guest lecturers from the field of medical law and ethics will be used to meet the objectives of the course. Three hours lecture per week. Prerequisite/corequisite: Public Health Issues (NURS/HSMB 301) or permission of instructor.

NURS 303 **HEALTH ASSESSMENT IN NURSING** *Fall, 4 credit hours*

This course will provide the student with knowledge and skills basic to health assessment in nursing. The course emphasizes critical thinking skills required for accurate collection and analysis of client health information and provides opportunities for enhancement of physical assessment skills. Students will be responsible for finding a qualified preceptor (with the approval of the course instructor) in order to successfully complete the clinical portion of this course. Two hours lecture per week and 45 hour preceptorship. Prerequisite: Students must be admitted into the RN-BS program or permission of instructor.

NURS 304 **HEALTH PROMOTION AND RESTORATION** *Spring, 3 credit hours*

This course provides the student with knowledge of the major individual and community models and theories that guide health-promotion interventions across the life span. This course presents information that enhances the students' ability to provide holistic health promotion and preventive care. The planning, implementing and evaluating of health promotion, prevention, and restoration activities for individuals, families, and communities is stressed. Relevant community based clinical experiences, integrated throughout the course provide opportunities for the student to demonstrate evidence-based health promotion care to diverse and vulnerable populations. Three hours lecture per week. Prerequisites/corequisites: Conceptual Frameworks in Nursing (NURS 300) and Health Assessment in Nursing (NURS 303) or permission of instructor.

NURS/DHYG/SSCI 370 **RESEARCH METHODS IN THE SOCIAL AND HEALTH SCIENCES** *Fall/Spring, 3 credit hours*

This course provides an intense comprehensive study of the scientific research process utilized in the social and health sciences. Students will be trained to be critical consumers of published research and will be expected to complete a research project. Topics that will be covered include the underlying theory of research; critically evaluating research; measurement; sampling techniques, establishing causation, surveys, qualitative approaches, field research, and data management and presentation. Three hours lecture per week. Prerequisite: Introduction to Psychology (PSYC 101) or Introduction to Sociology (SOCL 101) or Introduction to the Science and Technology of Behavior

(SSCI 245) or Principles of Macroeconomics (ECON 101) or Principles of Microeconomics (ECON 103) or permission of instructor. Statistics (MATH 141) or equivalent coursework is a prerequisite/corequisite. Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102) is a prerequisite for this writing intensive course. Additionally, students must have at least junior level status or permission of instructor.

NURS 400 **NURSING MANAGEMENT AND LEADERSHIP CLINICAL** *Spring, 3 credit hours*

This course introduces the student to the conceptual basis for the application of leadership and management principles. The student gains a better understanding of the application of these principles in the management and coordination of health care delivery systems. Exploration of the critical components of leadership and management in diverse health care settings and application of course content enhances the coordination of quality client care and the role of the nurse as a leader and manager. Two hours lecture per week and 45 hour preceptorship. Prerequisites: Conceptual Frameworks in Nursing (NURS 300), Public Health Issues (NURS 301), Legal and Ethical Issues in Health Care (NURS 302), Health Assessment in Nursing (NURS 303). Health Promotion and Restoration in Nursing (NURS 304) or permission of instructor.

NURS 402 **COMMUNITY HEALTH NURSING** *Spring, 3 credit hours*

This course provides the student with a comprehensive introduction to the conceptual frameworks underpinning community health nursing. This course explores and promotes the caring frameworks and integrated health care concepts utilized to practice professional nursing in the community setting. Public health principles, nursing theory and skills, the impact of global health status, and our continuing national health agendas are themes interwoven throughout the course. The clinical component provides an opportunity to apply theoretical content in the community setting. Two hours lecture, 45 hour preceptorship. Prerequisites: Research Methods in the Social and Health Sciences (NURS 370), senior level status or permission of instructor.

NURS 403 **TRANSCULTURAL NURSING** *Spring, 2 credit hours*

This course provides the student with an overview of the influence of culture on health care practices and in the delivery of nursing care for individuals, groups, and communities. Increased awareness of culturally diverse nursing care and a sound understanding of the impact of cultural beliefs, values, and practices upon health and health care delivery is a direct outcome of this course. The student explores and reflects upon their own cultural beliefs related to health and health care delivery and examines client behaviors, cultural perspectives, and barriers to transcultural communication. Knowledge, understanding, and sensitivity to diverse cultural values and meanings are an interwoven theme throughout the course content. Two hours lecture. Prerequisites: Research Methods in the Social and Health Sciences (Nursing 370), senior level status or permission of instructor.

PHED 101 **WEIGHT TRAINING** *Fall/Spring, 1 credit hour*

A study of the scientific principles and practices of progressive resistive weight training. The student will become familiar with sophisticated scientific research relative to weight training. Working with the instructor, the student will meet specific interests and objectives in developing and participating in a weight training program. Two hours of class per week.

PHED 103 **AEROBICS** *Fall/Spring, 3 credit hours*

An examination and implementation of the world's most popular physical fitness program (walking, jogging, swimming, cycling, etc.). Aerobics is based on a scientifically-developed point system, aimed at the overall fitness and health of your body. This program enables you to test yourself, decide how much activity you need, choose your own individual aerobic plan and measure your progress. The course, developed for both men and women of all ages, will provide opportunities for the students to establish a lifelong program for more healthful living. Three hours lecture per week.

PHED 207 **PHYSICAL FITNESS AND WELLNESS** *Spring, 2 credit hours*

The course is designed to provide each student with a conceptual and practical exposure to the principles of wellness and fitness that lead to a healthy life-style. The intent of the course is to provide the knowledge and skills with which to make appropriate life-style choices in a self-directed manner. Emphasis will be focused on the benefits of physical activity and the serious hazards of being inactive. Two hours lecture per week.

PHIL 201 **INTRODUCTION TO PHILOSOPHY** *Spring, 3 credit hours* **GER 7**

Rather than a history of philosophy, this course will focus on a study of personal values, ethics, and self-understanding in relation to life and its challenges. Students will compare traditional and contemporary philosophies and discuss how, when we face issues, we search for answers to life and its problems. Students will learn how to inquire into complex problems using effective methods of inquiry, analysis, and criticism, in order to begin to formulate their own philosophy. Three hours lecture per week.

PHSC 101-LECTURE **PHSC 102-LAB** **PHYSICAL SCIENCE** *Fall/Spring, 3-4 credit hours* **GER 2**

The major concepts of many of the physical sciences are presented, with physics and chemistry being covered extensively. Special emphasis is placed on how these concepts are related to the society and environment in which the students operate. No science background is assumed. Basic math skills are desirable but not essential. Three hours lecture per week. If lab is elected, an additional two hours laboratory per week is required.

Course Descriptions: PHYSICAL THERAPY

PHTA 100 **INTRODUCTION TO PHYSICAL THERAPY** *Fall, 3 credit hours*

Physical Therapist Assistant students are introduced to the discipline of physical therapy including history and philosophies. They receive introduction to a variety of practice settings and the team approach to rehabilitation. Students are familiarized with the Guide to Physical Therapist Practice and uniform terminology. Scope of practice, the New York State Practice Act, and ethical standards of conduct of the physical therapist assistant and the core values of physical therapy are identified. Medical terminology is introduced as an on-line self-tutorial. Students are introduced to basic physical therapy documentation and reimbursement issues. Cultural awareness is discussed and students begin to learn about interaction with individuals from cultures different than their own. Two hours lecture, one hour on-line per week. Corequisites: Fundamental Physical Therapy Skill and Modalities (PHTA 101), Human Anatomy and Physiology I (BIOL 217), or permission of instructor.

PHTA 101 **FUNDAMENTAL PHYSICAL THERAPY** **SKILLS AND MODALITIES** *Fall, 3 credit hours*

Physical Therapist Assistant students are introduced to fundamental physical therapy skills including documentation, proper body mechanics, patient preparation, positioning, dependent mobility, assisted transfers, passive joint range of motion, assistive ambulation and aseptic techniques. Thermal modalities and massage are studied and applied. The PTA student begins learning patient data collection including standard vital signs and anthropometric measurements. The student begins to describe and recognize the functional status and progression and safety of patients while engaged in gait, locomotion, wheelchair management, and mobility activities. Two hours lecture, three hours laboratory per week. Prerequisite: acceptance into the PTA curriculum. PHTA majors only.

PHTA 102 **KINESIOLOGY** *Spring, 3 credit hours*

Study and application of human motion is covered beginning with general anatomic terminology and concepts, types and laws of motion, bone, joint and muscle structure and function. Origins, insertions, actions and innervations of extremity and trunk musculature and palpable surfaces of same are discussed. Kinesiological concepts related to the gait cycle, posture, and functional movement are addressed. Two hours lecture, two hours laboratory per week. Prerequisite: Human Anatomy and Physiology I (BIOL 217) or permission of instructor.

PHTA 103 **MUSCULOSKELETAL PATHOLOGIES** *Spring, 4 credit hours*

Students are introduced to tissue healing in relation to musculoskeletal pathologies and their role in assisting the physical therapist with management of this patient population. The principles and techniques of therapeutic exercise are presented and related to specific musculoskeletal pathologies across the lifespan. The student will learn to apply a variety of exercise

techniques when given the physical therapy plan and goals. There will be a focus on educating the patient and/or care giver throughout the course. Students will also begin to read and understand professional literature. Three hours lecture, three hours laboratory per week. Prerequisites: Introduction to Physical Therapy (PHTA 100), Fundamental Physical Therapy Skills (PHTA 101), and Human Anatomy and Physiology I (BIOL 217). Corequisites: Kinesiology (PHTA 102), Musculoskeletal Pathologies (PHTA 103), and Human Anatomy and Physiology II (BIOL 218), or permission of instructor.

PHTA 104 **CLINICAL I** *Summer, 4 credit hours*

The student is assigned to a physical therapy clinical site where they will work under the direct supervision of a licensed physical therapist or a registered physical therapist assistant. This will provide the student with the opportunity to put the knowledge and skills he/she has acquired in the classroom and laboratory into practice in a clinical setting. A strong emphasis is placed on communication/professional behaviors. This experience will take place at the end of the second semester and will last for four full-time weeks. Prerequisites: Successful completion of first two semesters of PTA curriculum or permission of instructor. For PHTA majors only.

PHTA 105 **MUSCULOSKELETAL ASSESSMENT** **TECHNIQUES** *Spring, 1 credit hour*

This course introduces students to data collection tools used to assist the physical therapist with assessment of the musculoskeletal system. Emphasis will be placed on developing skill competency with goniometry and manual muscle testing, and postural assessment. Students will also gain familiarity with common medical imaging tests, orthopedic special tests, and functional assessments. Two laboratory hours per week in the second semester of the Physical Therapist Assistant curriculum. Prerequisites: Introduction to Physical Therapy (PHTA 100), Fundamental Physical Therapy Skills (PHTA 101), and Human Anatomy and Physiology I (BIOL 217). Corequisites: Kinesiology (PHTA 102), Musculoskeletal Pathologies (PHTA 103), and Human Anatomy and Physiology II (BIOL 218), or permission of instructor.

PHTA 203 **PTA SEMINAR I** *Fall, 3 credit hours*

This seminar course allows second year PTA students to engage in activities and discussions that will facilitate the development of the Core Values of physical therapy practice. In class assignments and discussion, as well as outside activities, will foster the students' integration of the American Physical Therapy Association core values of accountability, altruism, compassion/caring, excellence, integrity, professional duty, and social responsibility in preparation for culminating clinical affiliation experiences and clinical practice as a Physical Therapist Assistant. Prerequisites: Successful completion of all coursework in the first two semesters of the PTA curriculum and Clinical I (PHTA 104) or permission of instructor. PHTA majors only.

PHTA 204 **CARDIOPULMONARY AND** **INTEGUMENTARY PATHOLOGIES** *Fall, 3 credit hours*

In the first half of the semester students will study the cardiopulmonary system and related pathologies. Cardiopulmonary rehabilitation principles and management will be discussed and applied. Students will learn about diabetes and peripheral vascular disease as a lead-in to the integumentary system for the second half of the semester. Students will study interventions as related to the rehabilitation of integumentary injuries, including rehabilitation of amputees. Two hours lecture, three hours laboratory per week. Prerequisites: Successful completion of all coursework in the first two semesters of the PTA curriculum and Clinical I (PHTA 104) or permission of instructor. PHTA majors only.

PHTA 205 **NEUROMUSCULAR PATHOLOGIES** *Fall, 4 credit hours*

Neuroanatomy will be presented in preparation for the study of neurological assessments and facilitation techniques used in treatment of persons with neuromuscular pathologies. Normal, fine, and gross motor development and neuropathologies, both central and peripheral, throughout the life span will be discussed and treatment techniques practiced. Two hours lecture, four hours laboratory per week. Prerequisites: Successful completion of all coursework in the first two semesters of the PTA curriculum and Clinical I (PHTA 104) or permission of instructor. PHTA majors only.

PHTA 206 **ADVANCED PHYSICAL THERAPY** **MODALITIES** *Fall, 2 credit hours*

Students will learn basic principles of electricity and electrotherapy. Application of electrotherapeutic agents for pain control, neuromuscular stimulation, and tissue/wound healing will be studied and applied. Students will be introduced to spinal traction as a therapeutic modality. Students will enhance their research skills by reviewing and critiquing current professional literature related to various course topics. One hour lecture, three hours laboratory per week. Prerequisites: Successful completion of all coursework in the first two semesters of the PTA curriculum and Clinical I (PHTA 104) or permission of instructor. PHTA majors only.

PHTA 207 **CLINICAL II** *Spring, 6 credit hours*

This clinical practicum correlates with content taught in courses PHTA 100 through PHTA 206. The student is assigned to a physical therapy clinical site where he/she will work under the direct supervision of a licensed physical therapist or registered physical therapist assistant. This will provide the student with the opportunity to put the knowledge and skills they have learned in the classroom and laboratory into practice in a clinical setting. The PTA student will demonstrate clinical problem solving skills based on their academic knowledge. This experience will begin the fourth semester and will last six full-time weeks. Prerequisites: Successful completion of first three semesters of PTA curriculum or permission of instructor. For PHTA majors only.

Course Descriptions: PHYSICAL THERAPY, PHYSICS

PHTA 209 CLINICAL III

Spring, 8 credit hours

This clinical practicum correlates with content taught in courses PHTA 100 through PHTA 207. The student is assigned to a physical therapy clinical site where he/she will work under the direct supervision of a licensed physical therapist or registered physical therapist assistant. This will provide the student with the opportunity to put the knowledge and skills they have learned in the classroom and laboratory into practice in a clinical setting as well as expand their practical knowledge learned in prior clinical courses I and II. This course is writing intensive such that the student will have assigned papers, research projects and case studies to complete during their clinical experience utilizing computer technology. Students will submit drafts of writing assignments and will receive ongoing feedback utilizing asynchronous learning media. This experience will begin in mid fourth semester and will last eight full time weeks. Prerequisites: Successful completion of first three semesters of PTA curriculum and Clinical II (PHTA 207) or permission of instructor. For PHTA majors only.

PHTA 210 PHYSICAL THERAPIST ASSISTANT SEMINAR II

Spring, 2 credit hours

This course is designed to provide for the transition from the student role to the graduate role. Web-based review of national exam material will occur throughout the fourth semester of the PTA curriculum. Once back on campus students will participate in transitional preparation by performing licensing and interviewing procedures and sit for a mock national exam. Guest lecturers will present students with information on specialty areas in physical therapy to complete their academic experience. A student/director conference is required for each student prior to graduation. Fifteen hours lecture per week for one week, and one hour online per week for 15 weeks. Prerequisites: First three semesters PTA curriculum, Clinical II (PHTA 207) and Clinical III (PHTA 209) or permission of instructor. PHTA majors only.

PHYS 108 TECHNICAL PHYSICS (VERIZON PROGRAM)

Spring, 4 credit hours

This course is designed to introduce students to the physical laws and principles inherent in the study of mechanics, wave mechanics, light and optics electricity and magnetism, and time permitting modern physics. There will be an emphasis placed on the following topics: vibrations and waves, electricity and magnetism, and wave optics. Dimensional analysis and problem solving will be stressed. Four hours lecture per week. Prerequisites: Technical Math II (MATH 136) or permission of instructor.

PHYS 111 MECHANICS I

Fall, 3 credit hours

A study of some of the basic ideas in physics and their application to mechanical and fluid devices. Topics will include force and vectors, equilibrium, torque, rotating systems, uniform acceleration, work, energy and power, simple machines, properties of

solids, properties of fluids. Three hours lecture per week. Prerequisite: Intermediate Algebra (MATH 106) or equivalent or permission of instructor.

PHYS 112 MECHANICS 2

Fall, 3 credit hours

A study of some of the basic ideas in physics and their application to mechanical and fluid devices. Topics will include hydraulics, work, resolution of force systems, strength of materials, physical properties, center of gravity, wheels and pulleys, centripetal force and flywheels, section modules and area, stresses and deflection. Three hours lecture per week. Prerequisite: Mechanics 1 (PHYS 111) or permission of instructor.

PHYS 115 BASIC PHYSICS

Fall/Spring, 4 credit hours

Topical coverage includes systems of units, scientific method, scientific mathematics (including basic trigonometric functions), vectors, friction, forces and translational equilibrium, torques and rotational equilibrium, uniformly accelerated motion, Newton's Laws, work, energy, power. Emphasis is on development of laboratory and problem-solving skills including description, organization, analysis, summarization, and criticism in accordance with the scientific method. Four hours lecture per week. Prerequisites: Beginning Algebra (MATH 100) or permission of instructor. No science background is assumed.

PHYS 121 COLLEGE PHYSICS I

Fall/Spring, 3 credit hours

This is an introductory college physics course which uses algebra and trigonometry in developing some of the fundamental concepts of classical physics. Topics covered are units of measurement, vectors, velocity, acceleration, force, Newton's Laws of Motion, gravity, momentum, work, energy, power, circular motion, rotational motion and thermodynamics. Usually taken concurrently with Physics Lab I (PHYS 125). Three to four hours lecture per week. Corequisite: College Algebra (MATH 121) or permission of instructor.

PHYS 122 COLLEGE PHYSICS II

Spring, 3 credit hours

This is the second semester of an introductory college physics course which uses algebra and trigonometry in developing some of the fundamental concepts of classical physics. Topics covered are properties of solids and fluids, temperature, heat, laws of thermodynamics, electric forces and fields, electrical energy, capacitance and resistance, direct current circuits, reflection and refraction of light, wave optics. Usually taken concurrently with Physics Lab II (PHYS 126). Three to four hours of lecture per week. Prerequisite: College Physics I (PHYS 121) or permission of instructor.

PHYS 125 PHYSICS LAB I

Fall/Spring, 1 credit hour

Physics Laboratory I is a laboratory course to accompany College Physics I (PHYS 121) or University Physics I (PHYS 131). Students in these two courses will have common laboratory experiments concerning translational mechanics, rotational mechanics and

graphical analysis. This course is designated as writing intensive. Two hours laboratory per week. Corequisite: College Physics I (PHYS 121) or University Physics I (PHYS 131) or permission of instructor.

PHYS 126 PHYSICS LAB II

Spring, 1 credit hour

This is a laboratory course to accompany College Physics II (PHYS 122) or University Physics II (PHYS 132). Experiments examine electricity, DC circuits, AC circuits and optics. This course is designated as writing intensive. Two hours laboratory per week. Corequisite: College Physics II (PHYS 122) or University Physics II (PHYS 132) or permission of instructor.

PHYS 127 PHYSICS LAB III

Fall, 1 credit hour

This laboratory course is to accompany University Physics III (PHYS 133). The student will perform experiments related to collisions, properties of materials, rotational motion and thermal physics. This course is designated as writing intensive. Two hours laboratory per week. Corequisite: University Physics III (PHYS 133) or permission of instructor.

PHYS 131 UNIVERSITY PHYSICS I

Fall/Spring, 3 credit hours

This is an introductory college physics course which uses basic calculus in developing some of the fundamental concepts of classical physics. Topics covered are measurement, vector manipulation (including unit vector notation), linear kinematics and dynamics, motion in a plane, and conservation of energy and linear momentum. Usually taken concurrently with Physics Lab I (PHYS 125). Three to four hours of lecture per week. Prior exposure to physics recommended. In some unusual situations, permission of instructor may be given. Corequisite: Calculus I (MATH 161) or permission of instructor.

PHYS 132 UNIVERSITY PHYSICS II

Spring, 3 credit hours

This calculus based course covers topics in the area of electricity, magnetism and optics. Topics include electric fields, electric potential, conductivity, capacitance, magnetic fields, inductance, AC and DC circuits, EM waves, geometric optics and physical optics. Usually taken concurrently with Physics Lab II (PHYS 126). Three hours lecture per week. Prerequisite: University Physics I (PHYS 131); Corequisite: Calculus II (MATH 162); or permission of instructor

PHYS 133 UNIVERSITY PHYSICS III

Fall, 3 credit hours

This is the third semester of an introductory college physics course which uses basic calculus in developing some of the fundamental concepts of classical physics. Topics covered are rotation of rigid objects, static equilibrium of extended bodies, simple harmonic motion, gravitation, fluid mechanics, the laws of thermodynamics and kinetic theory of gases. Usually taken concurrently with Physics Lab III (PHYS 127). Three to four hours of lecture per week. Prerequisite: University Physics I (PHYS 131); Corequisite: Cal-

Course Descriptions: PHYSICS, POLITICAL SCIENCE, PSYCHOLOGY

culus II (MATH 162); or permission of instructor.

PHYS 202 MODERN PHYSICS *Spring, 3 credit hours*

The atomic view of matter, electricity and radiation, Bohr model, relativity, particle properties of waves, wave properties of particles, introduction to quantum mechanics, quantum theory of the hydrogen atom, the solid state, introduction to Fourier series and integrals and statistical mechanics. Three hours lecture per week. Prerequisite: University Physics II (PHYS 132) or permission of instructor.

PHYS 301 INTRODUCTION TO PHOTONICS *Fall/Spring, 3 credit hours*

This course explores the production and nature of light including: the laws of reflection and refraction, theory of image formation, principles of wave optics (including interference, diffraction and polarization), fundamentals of fiber optic theory, principles of lasers and laser safety, and the basics of holography with image processing. Throughout the course, emphasis is placed on applications of photonics in medicine, transportation, manufacturing, communications, environmental monitoring and consumer devices. Three hours lecture per week. Prerequisites: College Physics II (PHYS 122) or University Physics II (PHYS 132), or permission of instructor.

PHYS 330 INTRODUCTION TO CLASSICAL MECHANICS *Fall/Spring, 3 credit hours*

This course is a presentation of Newtonian mechanics at the intermediate level. Topics include dynamics of particles and rigid bodies, rotating reference frames, conservation laws, gravitational fields and potentials, planetary motion, wave motion, oscillation, LaGrangian and Hamiltonian equations. Three hours of lecture per week. Prerequisites: University Physics II (PHYS 132) or College Physics II (PHYS 122), or permission of instructor.

PHYS 340 ELECTROMAGNETISM *Fall/Spring, 3 credit hours*

This course is an intermediate level presentation of the physics of the electromagnetic field. The course will explore the applications of electromagnetism in medicine (magnetic resonance imaging), and the interdependencies between electric and magnetic fields which are the essence of the theories of circuits, lines, antennas and guided waves. Topics include Electric and magnetic fields using vector methods, Gauss's law, theory of dielectrics, Ampere's law, Faraday's law, vector potential, displacement current, Maxwell's equations, wave propagation in dielectrics and conductors, and production and propagation of radiation. Three hours of lecture per week. Prerequisites: University Physics II (PHYS 132) or College Physics II (PHYS 122), Calculus II (MATH 162), or permission of instructor.

PHYS 410 SOLID STATE SCIENCE *Fall/Spring, 3 credit hours*

This course explores how the diverse properties

(mechanical, electronic, optical and magnetic) of solid materials can be related to interactions at the atomistic level. Topics include crystal structures; bonding in solids; x-ray, neutron, and electron diffraction in crystals; lattice vibrations; energy bands in solids; the free-electron model; semiconductor and semiconductor devices. Three hours lecture per week. Prerequisites: Modern Physics (PHYS 202) or permission of instructor.

PHYS 420 INTRODUCTION TO QUANTUM MECHANICS *Fall, 3 credit hours*

This course is a senior-level introduction to the theory and formalism of non-relativistic quantum mechanics and its applications. This course provides the background with which to understand and meet the challenge of new applications of quantum mechanics. Principles of quantum mechanics and some mathematical techniques of solving quantum mechanical problems are examined. Three hours lecture per week. Prerequisite: University Physics II (PHYS 132) or College Physics II (PHYS 122; Calculus II (MATH 162), or permission of instructor.

PHYS 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN PHYSICS

Fall/Spring, 1-4 credit hours

Special Topics in Physics will generally include topics of current interest or topics not covered in courses currently offered by the department or in combinations not currently available. Prerequisite: permission of instructor.

POLS 101 INTRODUCTION TO GOVERNMENT AND POLITICS *Fall/Spring 3 credit hours*

GER 3

A study of major political concepts and approaches with emphasis on origin and nature of political systems. This course will also focus on structures and functions of political systems, rights and responsibilities of individuals, institutions, and political organizations such as interest groups, political parties, etc. Three hours lecture per week.

POLS 105 NATIONAL GOVERNMENT AND POLITICS *Spring, 3 credit hours*

GER 3

Continuation of the analysis of the United States political system, national government and politics, historical and current issues, the United States and international law and politics. Three hours lecture per week.

POLS 120 COMPARATIVE POLITICS AND GOVERNMENT *Spring, 3 credit hours*

This course presents a comparative analysis of historical development of key institutions of government, operations of government, political leadership, process, and change, policy making process and present evaluation of political performance in selected democratic, socialist, and third world countries. Three hours lecture per week.

PSYC 101 INTRODUCTORY PSYCHOLOGY *Fall/Spring, 3 credit hours*

GER 3

An introduction to the scientific analysis of behavior. Attention is given to the historical background of present-day psychology, scientific methodology, the physiological basis of behavior, perception, learning, motivation, emotion, personality and the analysis and measurement of individual difference. Three hours lecture per week.

PSYC 111 APPLIED PSYCHOLOGY *Fall/Spring, 3 credit hours*

GER 3

A survey of psychological principles and research-supported findings in the following applied areas: psychology applied to human adjustment; applications of psychology to business and industry, and consumer psychology. An additional option might include the topic of psychology applied to criminal behavior. Three hours lecture per week.

PSYC 220 CHILD DEVELOPMENT *Fall/Spring, 3 credit hours*

An eclectic approach to the growth and development of the child from conception to adolescence. Various theories and research will be covered to give a balanced picture of the changes that occur in areas such as cognition, personality, social relationships, behavior, physical development, and sociocultural factors throughout the life of a child. Three hours lecture per week (with optional placement at a day care center). This course is an alternate to Human Development (PSYC 225). Students may receive credit for only one developmental psychology course. Prerequisite: Introductory Psychology (PSYC 101) or permission of instructor.

PSYC 225 HUMAN DEVELOPMENT *Fall/Spring, 3 credit hours*

A systematic study of behavior from conception through death with emphasis on the psychosocial, biosocial, cognitive development and sociocultural factors affecting humans during various stages of development. Special emphasis is placed on scientific methods of human study and the understanding and treatment of common behavioral problems. Three hours lecture per week. This course is an alternate to Child Development (PSYC 220). Students cannot receive credit for both. Prerequisite: Introductory Psychology (PSYC 101), or permission of instructor.

PSYC 275 ABNORMAL PSYCHOLOGY *Fall/Spring, 3 credit hours*

An overview and critical study of the types and symptoms of mental and emotional disorders, emphasizing their causes, classification, and treatment from a variety of perspectives. This course will present the major theoretical approaches to understanding abnormality including psychodynamic, behavioral, cognitive, humanistic, existential, family systems, sociocultural, and medical. The course will include a critique of historical and current trends, myths, controversies, and misunderstandings surrounding psychological abnormality. Three hours lecture per week. Prerequisite: Introductory Psychology (PSYC

Course Descriptions: PSYCHOLOGY, SOCIOLOGY, SCHOOL OF ENGINEERING

101) or Applied Psychology (PSYC 111), or permission of instructor.

PSYC 340 SOCIAL PSYCHOLOGY

Fall/Spring or online, 3 credit hours

An introduction to the scientific study of how thoughts, feelings, and behaviors are influenced by other people. The course encompasses fundamental principles and theories including attitude formation and change, persuasion, perceptions of the self and other people, conformity, group dynamics, romantic and close relationships, prejudice, aggression, and helping behaviors. Application of theories to real-world settings will be emphasized, the role of culture will be incorporated into the course, and historical as well as current trends in the field will be discussed. Three hours lecture per week. Prerequisites: Introduction to Psychology (PSYC 101) or Introduction to Sociology (SOCI 101) or Introduction to the Science and Technology of Behavior (SSCI 245), junior level status, or permission of instructor.

PSYC 350 EDUCATIONAL PSYCHOLOGY

Spring, 3 credit hours

A study of human behavior in educational settings: the application of child and adolescent development and learning principles; including use of tests and measurements, motivation, exceptional learners, classroom and behavior management, cognitive strategies, and introduction to the concept of "Expert" teacher and student. Three hours lecture per week. Prerequisites: A grade of C or better in Child Development (PSYC 220) or Human Development (PSYC 225) and a minimum of 30 credit hours with a GPA of 2.0.

PSYC 360 ORGANIZATIONAL PSYCHOLOGY

Fall/Spring, 3 credit hours

An examination of the behavior of people in organizations. Topics include learning in organizations, motivating people, giving performance feedback, group processes, enhancing organizational effectiveness, personnel issues, morality and ethics in organizations, and helping people deal with stress. Three hours lecture per week. Prerequisite: Introduction to Psychology (PSYC 101) or Introduction to Sociology (SOCI 101) or Introduction to the Science and Technology of Behavior (SSCI 245), or permission of instructor.

PSYC 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN PSYCHOLOGY

Fall/Spring, 1-4 credit hours

Individual courses of instruction of variable credit (1-4 credits) may be offered each semester. These courses are designed to expand on topics in specific areas of psychology. Prerequisite: depends on the nature of each course.

SOCI 101 INTRODUCTION TO SOCIOLOGY

Fall/Spring, 3 credit hours

GER 3

This course provides an introduction to the discipline of sociology, including historic development, reliance on scientific method, core concepts and theories, and units of analysis from the dyad to society. Three hours lecture per week.

SOCI 105 AMERICAN SOCIAL PROBLEMS

Fall/Spring, 3 credit hours

GER 3

A sociological perspective on the origin, nature, impact and policies which address contemporary problems. Emphasis will be placed on institutional/macro sociological analysis interrelationships, and the global context of American problems. Three hours lecture per week.

SOCI 205 SOCIAL DEVIANCE AND CONTROL

Fall/Spring, 3 credit hours

Social deviance is the study of actions, attitudes and attributes which are disvalued and violate societal norms. Deviance includes such state-sanctioned activities as criminal behavior and delinquency to a range of actions and attitudes that challenge the normative order of society. This course will provide a detailed examination of the general theories, and range of empirical data, that attempt to explain the existence and occurrence of deviance. Three hours lecture per week. Prerequisite: Introduction to Sociology (SOCI 101) or permission of instructor.

SOCI 210 SOCIOLOGY OF THE FAMILY

Fall, 3 credit hours

The study of family as a key social unit with the emphasis on structure, functions, problems and future of the institution. Cross-cultural comparisons, the relationship between the family and other institutions, and family-related policies also will be discussed. Three hours lecture per week. Prerequisite: Introduction to Sociology (SOCI 101) or permission of instructor.

SOCI 250 SOCIOLOGY OF THE MASS MEDIA

Fall/Spring, 3 Credit hours

The course will begin by exploring the component and the basic concepts of mass media. Special emphasis is on the social construction power of the mass media. The positive role of the mass media will be explored as well as the negative impact. The social control function of the mass media will be explained. The course is aimed at providing a critical assessment of the social construction power of the mass media with an emphasis on images, content and context as presented in the mass media. The course will explore the images of various segments of American society as presented in the mass media including racial/ethnic groups, gender and sexual orientation, age and class. Three hours lecture per week. Prerequisite: Introduction to Sociology (SOCI 101) or permission of instructor.

SOCI 300 RACE AND ETHNIC RELATIONS: AMERICAN AND GLOBAL PERSPECTIVES

Spring, 3 credit hours

This course provides an overview and critical assessment of racial and ethnic relations. The student will be exposed to theories and research that explore the nature of ethnic stratification, incorporation, exclusion, and identity. Focusing on the United States, the course will survey key institutions and identify issues that reflect on inclusion/exclusion/identity. In addition, the course will briefly overview critical issues in racial and ethnic relations from a global context. Three hours lecture per week. Prerequisite: Introduction to

Sociology (SOCI 101) or permission of instructor.

SOCI 305 GENDER IN THE MEDIA

Fall/Spring, 3 credit hours.

The course will begin by reviewing the components and the basic concepts of mass media. The course will focus on the power of social construction of the mass media in creating appropriate images of masculinity and femininity including sexual orientation. The course will survey the various theoretical traditions coming from sociology, psychology and gender studies exploring gender dynamics as portrayed in the media. The course will examine research exploring the impact and the ideological consequences of the power of the mass media within the arena of gender dynamics. Three hours lecture per week. Prerequisites: Introduction to Sociology (SOCI 101) (with a grade of C or better) and junior level status with a GPA 2.00, or permission of instructor.

SOCI 313 WOMEN AND AGING

Fall/Spring, 3 credit hours

This course provides an extensive exploration of the impact of aging on women. Topics include the social construction of older women; historical and theoretical perspectives on midlife and older women; relationships with family and friends; racial, ethnic, and demographic issues; spirituality; economic issues; and living arrangements and care giving. Three hours lecture per week. Prerequisite: Introduction to Sociology (SOCI 101). Additionally, students must have at least junior level status or permission of instructor.

SOCI 320 SOCIOLOGY OF HEALTH, ILLNESS AND HEALTH CARE

Fall/Spring, 3 credit hours

Using the sociological perspective, this course explores how social factors such as age, gender, social class and race/ethnicity influence personal experiences of health, illness, and health care utilization. This course will challenge assumptions about health, illness and health care. Topics include the social construction of illness and health, a critique of the 'sick role', the meaning and experience of disability, chronic pain and chronic illness, an exploration of health care systems in the developed and developing worlds, and the challenges and opportunities facing both consumers and providers of health care in the 21st century. Three hours lecture per week. Prerequisites: Junior level status; Introduction to Sociology (SOCI101) or Introduction to Gerontology (HLTH 104 / SOCI104) or permission of instructor.

SOCI 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN SOCIOLOGY

Fall/Spring, 1-4 credit hours

An introductory or more advanced exploration of subjects not covered or only partially covered by other courses in sociology.

SOET 100 ENGINEERING TECHNOLOGY FORUM

Fall/Spring, 1 credit hour

This course focuses on orienting students to the academic environment at SUNY Canton and the CSOET, skills necessary to succeed in their curricu-

Course Descriptions: SCHOOL OF ENGINEERING TECHNOLOGY

lum, and careers available in curricula in the Canino School of Engineering Technology. One hour lecture per week.

SOET 110 COMPUTER APPLICATIONS FOR TECHNICIANS

Fall/Spring, 2 credit hours

This course introduces students to the Windows operating environment including creating and manipulating files and folders. Topics pertaining to word processor, spreadsheet and presentation software will be introduced with laboratory assignments and instruction oriented toward meeting the academic and career needs of the Engineering Technology students. Lab reports as well as technical documentation for assembly, disassembly and service procedures will be developed. One hour lecture, two hours laboratory per week.

SOET 111 INTRODUCTION TO PROGRAMMING

Fall/Spring, 1 credit hour

This course is an introduction to computer programming with Visual Basic for Applications with a spreadsheet. Emphasis is placed on using these computational tools to perform Engineering Technology related applications. This course is designed for students in ABET accredited programs of the Canino School of Engineering Technology. Two hours of laboratory per week. Prerequisites: completion of one physics course (PHYS 101, 103 or 105) plus Intermediate Algebra (MATH 106) or concurrent enrollment in College Algebra (MATH 121) or Calculus (MATH 122 or 161), or permission of instructor.

SOET 116 INTRODUCTION TO COMPUTER AIDED DRAFTING AND DESIGN

Fall, 2 credit hours

This course introduces the student to the use of a computer to produce engineering drawings. Students shall learn fundamentals functions of AutoCAD software (most current version). Other topics covered in the course include Orthographic Projection, National Drafting Standards and Conventions, Detail Drawings, Assembly Drawings, Architectural, Constructions, Electrical, PLMG/HVAC and Civil CADD topics. Four hours laboratory per week.

SOET 130 MICROSOFT NETWORKING ESSENTIALS

Fall/Spring, 2 credit hours

This course introduces students to Networking in a Microsoft Windows NT environment. It provides the knowledge/techniques necessary for the design, implementation, configuration and troubleshooting at an introductory level. The knowledge is based on providing students with an understanding of the technology, while the techniques come from applying that knowledge via evaluation of issues, and the collection, analyzing, and interpretation of how the technology can be used. One hour lecture, three hours laboratory per week. Prerequisite: Supporting Microsoft Windows (SOET 120) or permission of instructor.

SOET 150 TECHNICAL MATH AND GRAPHING CALCULATORS FOR TRADE

Fall/Spring, 4 credit hours

This course is designed for persons who have minimal background in mathematics or need considerable review, but who plan to enter in technical and trade programs. The course emphasizes the use of graphing calculator to cover basic manipulation of whole numbers, fractions, decimals and percents, systems of measurement, fundamentals of algebra and geometry from basic terminologies through formulas for perimeter, area of volume, as well as practical applications from variety of technical areas. Student's ability to read and analyze word problems will be stressed. Three hours lecture, two hours lab per week.

SOET 266 ENGINEERING TECHNOLOGY DOCUMENTATION

Fall/Spring, 3 credit hours

The course covers various types of technical documentation. Writing methods, styles and types of documents, including electronic and online are explored. Basic principles of communication theory and their application in the design of documentation are included. Students complete a portfolio of work with examples of different technical documents. Three hours lecture per week. Prerequisites: Expository Writing (ENGL 101) or Oral & Written Expression (ENGL 102) or permission of instructor.

SOET 348 ENGINEERING SAFETY

Spring, 1 credit hour

This course covers topics such as: The basic hazards and preventative measures from falls, mechanical injuries, heat and temperature, pressure, electricity, fires, explosions, toxic materials, radiation, vibration, noise, and computer safety. One hour lecture per week. Prerequisites: Student should be in his/her second year, or permission of instructor.

SOET 361 PROJECT MANAGEMENT

Fall, 3 credit hours

This course is an introduction to projects and project management as it pertains to Industry. Students will be introduced to principles of project selection, project planning & scheduling, duties of a project manager, project organization, implementation and termination. Three hours of lecture per week. Prerequisites: Junior standing or permission from instructor.

SOET 370 ENGINEERING PROJECT ANALYSIS

Fall/Spring, 3 credit hours

This course will focus on engineering project analysis of plans, design, and systems, including taking no action, in consideration of life cycle costs, user costs, and cash flow. Each engineering project will consider cost of funds (interest) depreciation, amortization, salvage value, taxation, capital cost, operational and maintenance costs. Evaluations of uncertainties are also considered on a probabilistic basis. Analysis techniques include parameter estimating, benefit/cost analysis, compound interest calculations and probabilistic modeling. Applications to actual manufacturing, construction, and software case histories are stressed

throughout the course. Three hours lecture per week. Prerequisite: College Algebra (MATH 121) or permission of instructor.

SOET 373 MANAGEMENT TELECOMMUNICATIONS

Spring/Fall, 3 credit hours

This course provides the student with opportunity to learn both voice and data communications, why companies and corporations feel that telecommunications is vitally important as well as how the regulatory environment affects the telecommunications industry. The technology is explained in an easy to understand, yet thorough, manner. Current and emerging technologies, the International Organization for Standardization, how telecommunications works, and how it is designed and managed, are covered. The student will learn why it is necessary to manage telecommunications, the functions of the telecommunications department, issues that telecommunications managers will be dealing with, and case studies. Three hours lecture per week. Prerequisites: Survey of Information Technology (CITA 163), or Management of Technology (BSAD 355), or equivalent or permission of instructor. Student should be in a junior level status.

SOET 377 ENGINEERING TECHNOLOGY ISSUES

Fall, 1 credit hour

This course extends the student analytical skills to moral deliberation. Topics covered include: Engineering codes of ethics, Responsibility in engineering, The social and value dimensions of technology, Trust and reliability, Engineers in Organizations, Engineers and environment, International engineering professionalism, Global issues, and respect for diversity. One hour lecture per week. Prerequisites: Oral & Written Expression (ENGL 102) or permission of instructor.

SOET 410 ENGINEERING TECHNOLOGY SENIOR SEMINAR

Spring, 3 credit hours

This seminar course provides a forum in which students will present project/internship proposals and results to peers and faculty. Practicing professionals will additionally give presentations on current engineering technology issues facing students upon graduation. This course will serve all students in the Canino School of Engineering Technology's baccalaureate programs requiring a project or internship and will expose each to the diversity of programs in the School. Three hours lecture per week. Prerequisites: Enrolled in the culminating experience course for major program of study, or permission of instructor.

SOET 430 SYSTEMS ANALYSIS

Fall/Spring, 3 credit hours

This course will enable students to learn and apply the skills a systems analyst needs to improve organizational processes. It will focus on the assessment of the users' interaction with technology and business functions, and on the analysis of data flow and its conversion into information. The course also explores some concepts of requirements engineering. A familiarity with MS Office (or similar product) is expected. Three hours lecture per week. Prerequisites: Junior/Senior level status and GER1 (math) or permis-

Course Descriptions: SPANISH, SPEECH, SPORTS MANAGEMENT

sion of instructor.

SOET 477 CAPSTONE PROJECT *Fall/spring, 3 credit hours*

This course provides a learning experience that allows a student to propose, design and implement a project. This could be a study of a problem and solution of specific equipment, new product design, improvement of an existing product, and many others. All projects must be approved by course faculty. 120 hours of work dispersed throughout the semester. Prerequisites: Completion of seven semester coursework (senior level status) or permission of program director.

SPAN 101 CONTEMPORARY SPANISH I *Fall/Spring, 4 credit hours*

GER 9

This course will introduce the student to the sound system and grammatical structure of the Spanish language. The focus will be on developing skills in the areas of aural comprehension, speaking, reading, and writing. By the end of the semester, the student will have a basic understanding of grammar, including word formation, verb conjugations, idiomatic expressions, and cognates. Four hours lecture per week. This course is only for the true beginner or for students who have had less than three years of high school Spanish. Four hours lecture per week. Students who have taken more than three years of high school Spanish may enroll in this course with the permission of the instructor. Speakers of Spanish may not take this course.

SPAN 102 CONTEMPORARY SPANISH II *Spring, 4 credit hours*

GER 9

This course will build upon the grammatical structure of the Spanish language learned in first semester Spanish. The focus will be on developing and increasing skill levels in the areas of aural comprehension, speaking, reading, and writing. The student will learn to describe situations in the present, past and future tenses. At the end of the semester, the student will have an intermediate understanding of grammar, including word formation, complex verb conjugations, and idiomatic expressions. This course will also discuss various cultural aspects of the Spanish-speaking world. Four hours lecture per week. Prerequisite: Contemporary Spanish I (SPAN 101) or have had at least three years of high school Spanish. Speakers of Spanish may enroll in this course with the permission of the instructor.

SPCH 104 INTRODUCTION TO SPEECH *Spring, 3 credit hours*

This course is an introduction to the principles of Effective Speech Communication. It includes techniques of audience analysis, establishing credibility as a speaker, planning, organizing and researching material, and delivery and use of audio visual aids. Both informative and persuasive speaking are covered. Three hours lecture per week.

SPMT 101 FOUNDATIONS OF SPORTS MANAGEMENT *Fall/Spring, 3 credit hours*

This course is designed to provide students with an overview of sports management issues, trends and career opportunities. The course will examine market-

ing, financial, ethical, and legal management principles and apply those principles to amateur, professional and lifestyle sport settings. Three hours lecture per week. Prerequisite: Introduction to Business (BSAD 100) or permission of instructor.

SPMT 202 SPORT IN SOCIETY *Fall/Spring, 3 credit hours*

This course examines sports using the sociological perspective. The course will focus on current and past issues within the sociology of the sporting landscape. Students will utilize critical thinking skills, past research and theories to examine the role of sports as a key social institution that influences and is influenced by the larger society. Three hours lecture per week.

SPMT 203 LEADERSHIP FOR SPORT PROFESSIONALS *Fall, 3 credit hours*

This course will first introduce students to theories, approaches, and styles of leadership, as well as, the role that ethics and ethical decision making play in shaping leader behavior. Students will analyze leadership practices within different sport settings. Case studies of sport leaders from multiple sport levels and structures will be used to examine best practices in sport leadership. Critical issues in sport leadership such as gender and ethnicity will be examined as well. Students will also begin to explore their own leadership thoughts and tendencies and emphasis will be placed on the promotion of personal leadership development with a focus towards successful sport leadership. Three hours lecture per week. Prerequisites: Foundations of Sport Management (SPMT 101) or permission of instructor.

SPMT 304 LEGAL ISSUES IN SPORT *Fall/Spring, 3 credit hours*

This course is designed to introduce students to legal applications within the sport industry. Through the use of case studies, an in-depth look at amateur and professional sports legal issues, such as; due process, anti-trust, free speech, duty of care, care owed to athletes and spectators, injuries, assumption of risk, contributory negligence, Title IX, contracts, tort law, and the growing instance of violent acts or as a result of sporting events. Three hours lecture per week. Prerequisites: Business Law I (BSAD 201) or permission of instructor.

SPMT 305 SPORTS FINANCE *Fall/Spring, 3 credit hours*

This course deals with the importance of finance and accounting theory within the sport industry. Students will explore elements that influence the financial world then apply such elements to the specific sport business world. From case studies, this course will examine business structure, sources of capital and financial management in the unique business environment of professional and college sports. Three hours lecture per week. Prerequisites: Introduction to Business (BSAD 100) and Introduction to Finance (FSMA 210) or permission of instructor.

SPMT 306 SPORTS OPERATIONS AND FACILITIES MANAGEMENT *Fall/Spring, 3 credit hours*

This course familiarizes students with the scope and functions of operating and maintaining sport and recreation facilities. The course will provide the framework for students to learn the management, organizational tasks, and laws and guidelines required for successful and safe operation of stadiums, golf courses, aquatic centers, ski areas, playing fields, ice arenas and other sport and recreation venues. Three hours lecture per week. Prerequisites: Human Resource Management (BSAD 310), Leadership for Sport Professionals (SPMT 203), Principles of Management (BSAD 301) or permission of instructor.

SPMT 307 SPORTS MARKETING *Fall/Spring, 3 credit hours*

This course examines the various techniques and strategies used in meeting the wants and needs of consumers in the sports industry. The course also makes a comparison between sports marketing and traditional marketing. Students will learn about the importance of market research and segmentation in identifying the right sports consumer. Students will also learn about how data-based marketing can be used to connect them with the sports consumer and the development of sponsorship and endorsement packages. Three hours lecture per week. Prerequisites: Foundations of Financial Accounting (ACCT 101) and Expository Writing (ENGL 101), or junior level status, or permission of instructor.

SPMT 308 SPORT EVENT MANAGEMENT *Fall/Spring, 3 credit hours*

This course will focus on the fundamentals of sports events management at multiple levels – recreational, college, and professional. Components will include program planning, organization, budgeting, marketing, risk management, staffing, conducting the event, program evaluation, and other factors associated with successful management of sport events. Students will be responsible for the management of at least one college sport event on campus. Three hours lecture per week. This course is designed to run concurrent with Sports Marketing (SPMT 307). Prerequisites: Sports Operations and Facilities Management (SPMT 306) or permission of instructor.

SPMT 309 SPORTS GOVERNANCE *Fall/Spring, 3 credit hours*

This course is an examination of governance structures within professional and amateur sport organizations. Students will explore policy elements and issues within scholastic, amateur, campus recreation, intercollegiate athletics, professional sport (North American and International), and Olympic sport. This course will examine the mission, structure and function of sport governing bodies such as the NCAA and NAIA in Intercollegiate Athletics, Players Associations in Professional Sports, and the IOC, NOC's and OGOC's in Olympic sport. Three hours lecture per week. Prerequisites: Introduction of Business (BSAD 100) and Foundations of Sports Management (SPMT 101) or permission of instructor.

Course Descriptions: SPORTS MANAGEMENT, SOCIAL SCIENCE

SPMT 410 ORIENTATION TO CULMINATING EXPERIENCE IN SPORTS MANAGEMENT

Fall/Spring, 1 credit hour

This course prepares the student for their internship or senior project in sport management. Through participation in this course, creating a mock internship and fulfilling the paperwork process will provide the student with the practical experience necessary to successfully apply for and complete their capstone internship. Alternatively, if the student chooses the senior project route, the course will provide them with the collaboration with their advisor and classmates that will create the foundation for, and plan of, what is to be accomplished in satisfaction of the requirements for completion of the senior project. One hour lecture per week. Prerequisites: Senior level status in SPMT and completion of required Sport Management courses through semester six, or permission of instructor.

SPMT 411 SPORTS PUBLIC RELATIONS

Fall/Spring, 3 credit hours

This course focuses on the application of media relations, communications, sport marketing, and demographical concepts in a sport organization. Students will develop a sport public relations campaign that will utilize various broadcast, electronic, and print media. Students will learn how to generate and run focus groups, as well as generate media packets, press releases, and presentation of their public relations campaign. Three hours lecture per week. Prerequisites: Sports Operations and Facility Management (SPMT 306), Sports Marketing (SPMT 307), Sports Event Management (SPMT 308), or permission of instructor.

SPMT 412 SPORTS SALES AND SPONSORSHIPS

Fall/Spring, 3 credit hours

In this course students will learn techniques and strategies for enhancing and expanding sport sales and sponsorships. Students will examine the sports sales process and compare the strengths and disadvantages of various selling strategies and methods. Sponsorship opportunities will be reviewed and students will learn key elements of sport sponsorship sales, implementation and evaluation. Three hours lecture per week. Prerequisites: Sports Marketing (SPMT 307) or permission of instructor.

SPMT 413 CONTINUING ISSUES IN COLLEGE SPORTS ADMINISTRATION

Fall, 3 credit hours

Using a seminar format, this course will study the enterprise of college athletics in the United States. Primary focus, discussion and research will center on current contemporary issues in college athletics including but not limited to gender equity & Title IX, graduation rates, recruitment ethics, hazing, drug testing, pay for play, diversity in coaching, financial issues, student-athlete behavior, and academic reform and how these issues impact the function, management and leadership of intercollegiate athletic programs. Three hours lecture per week. Prerequisites: Senior level status in SPMT or permission of instructor.

SPMT 414 LABOR RELATIONS IN SPORT

Fall/Spring, 3 credit hours

This course is an examination of labor markets in sport and the infrastructural interests of management (league and teams) and players (players associations, players, agents/attorneys). Students will review collective bargaining agreements and evaluate the impact of salary caps, free agency and athlete compensation frameworks. This course will examine athlete salaries and agent representation and the unique labor markets of Major League Baseball and the National Football League. Three hours lecture per week. Prerequisites: Legal Issues in Sport (SPMT 304), Human Resource Management (BSAD 310), or permission of instructor.

SSCI 135 PARENTING KNOWLEDGE AND SKILLS

Fall/Spring, 3 credit hours

This course examines the application of the natural science and technology of behavior to improvements both in knowledge of parenting and in child rearing skills. The range of advances in behaviorologically-based child rearing practices discovered since the 1950's is covered after reviewing scientifically uninformed practices used earlier. Behavior management-related skills for application in everyday public and personal situations involving children and their caregivers is included. Three hours lecture per week.

SSCI 181 ALCOHOL, DRUGS, AND SOCIETY

Fall/Spring, 3 credit hours

GER 3

This course examines the various theories and models of drug abuse and addiction. The pharmacology of drugs and alcohol and the behavioral and social consequences of drug abuse are studied. Students will have an opportunity to explore the scope of and impact on American Society by the abuse of alcohol and drugs. Topics will include: the impact on family systems, treatment, prevention and social control and public policy in the United States. Three hours lecture per week.

SSCI 221 INTRODUCTION TO CHINESE HISTORY AND CULTURE

Fall/Spring, 3 credit hours

GER 6

This course introduces students to the major aspects of Chinese history and culture. The broad outlines of the interaction between history and culture are developed through coverage of the major Chinese dynasties together with coverage of the influence of Chinese literature, language, and art, in the context of current social life. Three hours lecture per week.

SSCI 223 CHINESE CULTURAL EXPERIENCE

Summer, 3 credit hours

Students will spend three weeks traveling to sites of cultural and historical interest in China (Xi'an and Beijing) and meeting with students and faculty at Chinese universities as well as local populations. They will learn about language, literature, fine arts, and ancient and modern historical trends and events. All instruction will be given in English. Students will also produce several writings about their experiences, including an introductory essay which will discuss their preconceptions about China, journals which

record specific experiences and impressions, and a final essay in which they will synthesize their preconceptions with their experiences, discuss information they have assimilated, and explain how their views have changed as a result of the experience. Students will spend approximately one week in and around Beijing and approximately two weeks in and around Xi'an. Thirty-six hours lecture, thirty-two hours laboratory (lecture and tours) plus individual cultural interaction. Prerequisite: Introduction to Chinese History and Culture (SSCI 221) or permission of instructor.

SSCI 245 INTRODUCTION TO THE SCIENCE AND TECHNOLOGY OF BEHAVIOR

Fall/Spring, 3 credit hours

GER 3

An introduction to the natural science and technology of behavior, encompassing the areas of fundamental principles, basic methods and measurements, and elementary technologies of behaviorology including techniques applied in prevention and intervention settings, plus historical and philosophical perspectives, ethics, and current trends. Three hours lecture per week.

SSCI 271 CONTEMPORARY GLOBAL ISSUES

Fall/Spring, 3 credit hours

GER 6

This course introduces the students to global economic and political issues. The primary focus is on the global interplay between the changing resource base, dynamics of needs and concerns of human beings, and the economic, social, and political systems. The intent is to examine the extent to which our economics, social and political systems are successfully adjusting to changes in the underlying natural resource base (ecology), and contributing toward global sustainability of modernization and development. Specific topics covered each semester may vary. Three hours lecture per week.

SSCI 275 INTRODUCTION TO UKRAINIAN CULTURE AND HISTORY

Fall/Spring, 3 credit hours

GER 5

Introduction to major aspects of Ukrainian culture and history. Cultural topics related to family, religion, population demographics, government, arts, music, literature and education will be included. Contemporary life in Ukraine and the broad sweep of historical forces contributing to today's culture will be the focus of the course. The recent events in Ukraine will be discussed, such as the election of October-December 2004 and the "Orange Revolution." Ukraine gained its independence in 1991 and is fiercely proud of this independence from the Soviet Union. Three hours lecture per week.

SSCI 315 DEATH, DYING, AND BEREAVEMENT

Fall/Spring, 3 credit hours

This course is designed to present various ways in which social science views the human experience of death, dying, and bereavement. Drawing from sociology and psychology, this course will introduce macro and micro level theories and associated concepts. Micro-level concepts and theories about the interaction patterns between the dying patients and the family, medical staff and others involved will be examined.

Course Descriptions: SOCIAL SCIENCE

Also discussed will be: societal (or macrolevel) theories of social change, the ethical problem of euthanasia, and the needs of the dying; the biological, social, and psychological factors in the lengthening of life; and the consequences of death, dying, and bereavement. Cross-cultural experiences with these phenomena will also be examined. Three hours lecture per week. Prerequisites: Introduction to Psychology (PSYC 101) or Introduction to Sociology (SOCI 101) and 30 credit hours, or permission of instructor.

SSCI 345 APPLIED SCIENCE AND TECHNOLOGY OF BEHAVIOR

Fall/Spring, 3 credit hours

Common problematic human behaviors from a range of ordinary settings are analyzed along with the accessible independent variables of which these behaviors are a function as discovered by the natural science of behavior. Together, these are examined for prevention and solutions through the basic behavior/environment engineering applications that are derived from the basic principles and techniques of behaviorology. Also considered are (a) the historical circumstances leading to these applications, (b) the value in design over accident or chance in the control of individual behavior and cultural practices, and (c) the place of ethics in considering and solving behavior problems. Three hours lecture per week. Prerequisite: Introduction to the Science and Technology of Behavior (SSCI 245) or permission of instructor.

SSCI 365 BEHAVIOR ENGINEERING: REHABILITATION

Fall/Spring, 3 credit hours

This course examines the application of the natural science and technology of behavior to foster improvements in human interactions and success rates in institutional rehabilitation settings such as hospitals and prisons. The scientific basis of punishment that often informs many practices in such settings is covered along with rehabilitation considerations focused on both adult and youth clients or offenders. The course takes a systematic and data-based behaviorological orientation to the organization and management of hospital or corrections personnel and institutions, and patient/prisoner rehabilitation. The development of behavior management-related knowledge and skills for application in everyday situations in institutional rehabilitation settings is an integral course component. Three hours lecture per week. Prerequisite: Introduction to the Science and Technology of Behavior (SSCI 245) or Correctional Philosophy (JUST 105), or permission of instructor.

SSCI/NURS/DHYG 370 RESEARCH METHODS IN THE SOCIAL AND HEALTH SCIENCES

Fall/Spring, 3 credit hours

This course provides and intense comprehensive study of the scientific research process utilized in the social and health sciences. Students will be trained to be critical consumers of published research and will be expected to complete a research project. Topics that will be covered include the underlying theory of research; and data management and presentation. Three hours lecture per week. Prerequisite: Introduction to Psychology (PSYC 101), or Introduction to

Sociology (SOCI 101), or Introduction to Science and Technology of Behavior (SSCI 245), or Principles of Macroeconomics (ECON 101), or Principles of Microeconomics (ECON 103); Statistics (MATH 141) or equivalent course work, and Expository writing (ENGL 101) or Oral and Written Expression (ENGL 102, or permission of the instructor. Additionally, students must have at least junior level status or permission of the instructor.

SSCI 375 BASIC AUTISM ABA METHODS

Fall/Spring, 3 credit hours

This course examines the application of the natural science and technology of behavior to the interventions for children with autism using basic Applied Behavior Analysis (ABA) methods. Exercising a systematic and data-based behaviorological orientation, the course topics include: (a) the evaluation of different approaches for effectiveness, (b) the skills to be taught to children with autism, (c) the behavior engineering practices and skills needed to teach autistic children effectively, (d) the different roles of professionals and paraprofessionals involved in autism intervention efforts, (e) the organizational and legal supports available to autistic children and their families, (f) the roles of different autism treatment team members, (g) the organizational and legal interactions between families with autistic children and their local schools, and (h) the answers to the most common questions asked by parents of autistic children. Examination of actual autism training curricula, programs, practices, data sheets, settings, and case histories are also integral parts of the course. Three hours lecture per week. Prerequisites: For undergraduates: Introduction to the Science and Technology of Behavior (SSCI 245) with Applied Science and Technology of Behavior (SSCI 345) recommended, or permission of instructor.

SSCI 380 INTRODUCTION TO VERBAL BEHAVIOR ANALYSIS AND APPLICATIONS

Fall/Spring, 3 credit hours

Based on natural science principles and practices, this course introduces students to (a) the behaviorological analysis of verbal behavior/language, (b) the historical context in which verbal behavior analysis arose, and (c) some applications of verbal behavior analysis especially as it is applied to enhance the acquisition of verbal behavior/language, by foreign language learners or students with developmental disabilities.

Covered analysis topics include such fundamental concepts as (a) differentiating verbal and nonverbal behavior, (b) the verbal community, (c) mediated reinforcement, (d) the basic verbal behaviors called mands, tacts, intraverbals, codics, and duplicates, (e) various extensions of these elementary verbal operants, (f) the most common variables of which verbal operants are a function, (g) some of the ways these variables combine in the multiple control of complex verbal behaviors, (h) response products, (i) point-to-point correspondence, (j) formal similarity, (k) thematic and formal controls over verbal behavior and (l) the ways the verbal community teaches speakers to respond verbally to their private experiences. Three hours lecture per week. Prerequisites: Introduction to the Science and Technology of Behavior (SSCI 245) and 30 credit hours earned, or permission of instructor.

SSCI 455 PERFORMANCE MANAGEMENT AND PREVENTING WORKPLACE VIOLENCE

Fall/Spring, 3 credit hours

This course examines the application of the natural science and technology of behavior to the understanding, prevention, and deterrence of workplace violence, and does so on three levels: The course examines the scientific analysis of punishment as punishment informs many practices present in workplace settings that match the violence-prone profile. Next, the course emphasizes the acquisition and application of behavior management-related knowledge and skills relevant to changing the circumstances that lead to workplace violence so as to prevent its possible occurrence. Then, the course extends its systematic and data-based behaviorological orientation from the understanding of workplace violence, and its prevention, to developing, comparing, applying, and evaluating policies and procedures to intervene in the dynamics, indicators, types, and triggers of workplace violence to deter its imminent occurrence. These three levels are considered for all workplaces including those in industrial/manufacturing, organizational, marketing, financial, institutional, or retail business settings. Three hours lecture per week. Prerequisites: For undergraduates: Introduction to the Science and Technology of Behavior (SSCI 245) or Human Resource Management (BSAD 310) or Management Communications (BSAD 340) or Organization Psychology (PSYC 360), or permission of instructor.

SSCI 465 CLASSROOM MANAGEMENT AND PREVENTING SCHOOL VIOLENCE

Fall/Spring, 3 credit hours

This course covers the application of the natural science and technology of behavior to classroom management practices to prevent school violence. This course first examines the scientific understanding of punishment and coercion, because these provide the bases of many school practices that, unintentionally, promote violence. Through a systematic and data-based behaviorological orientation, the course next examines the positive, proactive, non-coercive classroom management practices that school teachers and staff can personally implement-especially in the classroom but also in the cafeteria, in the gym, on the bus, and on the playground-to reduce and prevent the occurrence of all kinds of school violence while also enhancing the effectiveness of instruction. Then, the course examines the school-wide policies and procedures (as encouraged by legislation such as the New York State Safe Schools Act) that can be implemented to deter incipient school violence. Developing behavior management-related skills, especially those applicable to changing the circumstances that lead to school violence so as to reduce that violence, is an integral course component. Three hours lecture per week. Prerequisites/corequisites: For Undergraduates: Introduction to the Science and Technology of Behavior (SSCI 245) or Principles of Education (EDUC 210), or permission of instructor.

SSCI 291-295, 391-395, OR 491-495 SPECIAL TOPICS IN SOCIAL SCIENCE

Fall/Spring, 1-4 credit hours

An introductory or more advanced exploration of subjects not covered or only partially covered by other

Course Descriptions: FACILITIES OPERATION, VETERINARY

courses in any social science discipline. The course is specified in the semester class schedule. The course will address topics which require a broader scope or an examination in greater depth. Providing a different topic is selected, the student may take this course twice for credit.

TMMA 310 ENERGY MANAGEMENT

Fall/Spring, 3 credit hours

Energy Management is an overview course on managing energy use in buildings. Topics include energy audits, energy bills, economic analysis, and specific energy saving techniques. Three hours lecture per week. Prerequisites: Basic Calculus (MATH 122), General Physics II (PHYS 102) or permission of instructor.

TMMA 380 TECHNOLOGY MANAGEMENT: FACILITIES OPERATION INTERNSHIP ORIENTATION

Fall, 1 credit hour

An internship in industry is required to complete degree requirements in the Facilities Operation program. The course prepares students for the internship and helps each secure an appropriate internship location. One hour lecture per week. Prerequisites: Satisfactory completion of fifth and sixth semesters of Facilities Operation program or permission of instructor.

TMMA 409 FACILITIES OPERATION SENIOR PROJECT

Spring, 3-9 credit hours

This course is required for students who are unable to complete 12 credits of internship. Depending on the number of internship credits, students will be required to complete 3-9 credits of a senior project. The senior project requires extensive research and analysis on a facilities management topic that is approved and supervised by the program director. The topic can include a project with a facilities manager. The proposal will be evaluated for content specifics and appropriate credits. Upon completion of a project, the student will submit a written study and also be prepared to respond to questions on the study's methodology, findings, and conclusions. Three to nine weeks full-time or part-time equivalent, 108-324 project hours. Prerequisite: Technology Management: Facilities Operation Internship Orientation (TMMA 380) or permission of instructor.

TMMA 410 FACILITIES OPERATION SENIOR SEMINAR

Spring, 3 credit hours

Senior Seminar serves as a capstone course for Facilities Operation program students who are completing or have completed their internship/project experiences. The course, which examines advanced issues and contemporary developments in Facilities Management, utilizes the training students have received in their prior courses and in their internship/project experiences. Three hours lecture per week. Prerequisite: Technology Management: Facilities Operation Internship Orientation (TMMA 380). Corequisite: Technology Management: Facilities Operation Internship (TMMA 480) or permission of instructor.

TMMA 480 TECHNOLOGY MANAGEMENT: FACILITIES OPERATION INTERNSHIP

Spring, 3 to 12 credit hours

This is the required internship phase of the Facilities Operation program. Students receive on-the-job training in many facets of the workplace. These include interpersonal relations, group problem solving as well as the more traditional training specific to each site. Three-twelve weeks at 36-40 hours per week or part-time equivalent. Prerequisites: Completion of the first seven semesters of the Facilities Operation program; Technology Management in Facilities Operation Internship Orientation (TMMA 380) or permission of instructor.

VAST 105 VETERINARY ASSISTING

Spring, 1 credit hour

This course provides students with an understanding of the roles of all members of the veterinary health care team and the knowledge and skills necessary to assist veterinarians and veterinary technicians in the practice of their professions. It instructs students in proper basic care and husbandry of animals as well as the monitoring of general animal health indicators. It emphasizes the proper handling and restraint of animals for examinations and medical procedures. Care of veterinary supplies, equipment and facilities will also be covered, with an emphasis on meticulous disinfection, sterilization and infection control measures. Students are required to participate in kennel duty as part of this course. Three hours laboratory per week. Prerequisite: enrollment in the Health Science Career Studies Certificate and successful completion of Medical Terminology of Disease (HLTH 200) or permission of instructor.

VSCT 100 HUMAN COMPANION ANIMAL BOND

Fall, 1 credit hour

The Human Companion Animal Bond course is an interdisciplinary approach to understanding human-animal relationships. Topics include mechanisms of attachment, social and psychological aspects of human-animal interactions, pet loss and bereavement, physical and mental health benefits of animals, and animal assistance therapy programs. Major focus will be on developing the student's interdisciplinary knowledge and understanding of the issues surrounding animals in society. Two hours laboratory per week.

VSCT 101 FUNDAMENTAL VETERINARY NURSING SKILLS I

Fall, 2 credit hours

This course introduces students to the Veterinary Technology profession and fundamental animal care nursing skills. Students learn how to properly restrain cats and dogs, administer parenteral injections on models, take a patient history, complete medical records, conduct a physical examination, and perform clinical procedures related to primary patient care. Students also learn to identify cat and dog breeds and surgical instruments. Competencies related to basic nursing care are conducted at the end of the course. Course is limited to freshman students in the Veterinary Science Technology curriculum. One hour lecture, two hours laboratory per week. This course

is a prerequisite to all other required VSCT courses. Prerequisites/corequisites: College Biology I (BIOL 150), General, Organic, and Biochemistry lecture and lab (CHEM 120 & 121), Introduction to Animal Agriculture (VSCT 103), or permission of instructor.

VSCT 102 COMPANION ANIMAL BEHAVIOR

Spring, 2 credit hours

This course is designed to help veterinary technicians gain insight and understanding into normal canine and feline behavior. The first unit of the course explores canine behavior, discussing such topics as domestication, social behavior, communication, and principles of learning. The second unit investigates feline behavior, and includes such topics as feline domestication, social behavior and communication. Students learn how to take a behavioral history, analyze problem behavior, perform appropriate behavior modification techniques, and educate clients on common pet behavior problems. Two hours lecture per week. Limited to veterinary science students.

VSCT 103 INTRODUCTION TO ANIMAL AGRICULTURE

Fall, 2 credit hours

An introductory course designed to familiarize the student with the use of animals to produce food, fiber, or profit. Beef cattle, dairy cattle, horses, sheep, swine, goats, and other animals will be discussed. The intent of this course is to provide the student with insight as to the functions and needs of the animal owner/producer. Common production schemes, terminology, and animal breeds will be addressed. Two hours lecture per week.

VSCT 104 VETERINARY OFFICE PRACTICES

Spring, 1 credit hour

This course introduces basic veterinary office practices that would be expected of a graduate veterinary technician. The course covers business and professional skills such as: record keeping, scheduling appointments, professionalism and client communication. This course also provides hands-on experience with current veterinary practice software. Two hours laboratory per week. Prerequisite: Fundamental Veterinary Nursing Skills I (VSCT 101) or permission of instructor.

VSCT 112 VETERINARY CLINICAL PATHOLOGY I

Spring, 3 credit hours

An introduction to Veterinary Clinical Pathology as it relates to normal and abnormal physiology of animal species. Emphasis will be placed on techniques and sample handling rather than diagnosis. This course includes instruction in general laboratory equipment and the proper preparation of biological samples. Students will learn basic diagnostic techniques that include complete blood count, urinalysis, and examination of feces for internal parasites. Enrollment limited to Veterinary Science Technology students. Two hours lecture, two hours laboratory per week. Prerequisite: Fundamental Veterinary Nursing Skills I (VSCT 101) or permission of instructor.

Course Descriptions: VETERINARY

VSCT 114 **ANIMAL ANATOMY AND PHYSIOLOGY** *Spring, 3 credit hours*

An introduction to the fundamental understanding of animal structure and function. Emphasis placed on the practical aspects of anatomy and physiology of different species. Discussion will include tissues, organs, and body systems which make up the living mammalian organism. Two hours lecture, two hours laboratory per week. Prerequisite: College Biology I (BIOL 150) or permission of instructor. Enrollment limited to Veterinary Science students.

VSCT 115 **FUNDAMENTAL VETERINARY NURSING SKILLS II** *Spring, 2 credit hour*

This course is a continuation of material and information covered in Fundamental Veterinary Nursing Skills I. Students will review and perform handling and restraint techniques on dogs and cats, and will recognize, handle, and discuss husbandry of birds, small mammals, and selected exotic species. Students will discuss instrumentation and restraint techniques for horses and livestock. Students will perform nursing procedures including diagnostic techniques, wound care and management, more advanced therapeutic procedures and injection techniques. Management and communication skills as well as client education will be further developed. One hour lecture, two hours laboratory per week. Prerequisite: Fundamental Veterinary Nursing Skills I (VSCT 101) or permission of instructor. Enrollment limited to Veterinary Science students.

VSCT 116 **COMPETENCY SKILLS FOR VETERINARY TECHNICIANS** *Fall, 1 credit hour*

This course is provided to students enrolled in the SUNY Canton/Adirondack Community College Articulation in Veterinary Science. Enrollment is limited to these students only. Students will review material and techniques taught in the Veterinary Science courses from Adirondack Community College. Students will also be introduced to laboratory protocols and kennel procedures used at SUNY Canton in an effort to help ensure their success in the Veterinary Science program. Three hours lecture per day for one week. Prerequisite: Successful completion of all courses in the first two semesters at Adirondack Community College Veterinary Science program as described in the articulation agreement. Enrollment limited to Veterinary Science students.

VSCT 202 **VETERINARY CLINICAL PATHOLOGY II** *Fall, 3 credit hours*

A course of continued study (Veterinary Clinical Pathology I) dealing with diagnostic laboratory procedures and their correlation with pathological conditions. Laboratory practice in hematology, chemistry, parasitology, urinalysis, etc. of all the domestic species of animals. Limited to Veterinary Science Technology students who have satisfactorily completed the course Veterinary Clinical Pathology I (VSCT 112). Two hours lecture, two hours laboratory per week.

VSCT 203 **SMALL ANIMAL MEDICINE AND THERAPEUTIC TECHNIQUES** *Fall, 3 credit hours*

This course is designed to introduce the student to many of the common procedures performed by Licensed Veterinary Technicians in a small animal clinic situation. The student will be instructed on many of the common canine and feline diseases and will become familiar with the signs, therapeutic treatments, and methods of prevention. Small animal zoonotic diseases will be discussed to familiarize the student with topics that veterinary practices are frequently called upon to answer. The student will demonstrate how to perform multiple techniques such as intravenous catheter placement, cystocentesis, the care and wrapping of surgical instruments, and stomach tube placement. Enrollment limited to Veterinary Science Technology students. Two hours lecture, two hours laboratory per week. Prerequisites: Fundamental Veterinary Nursing Skills I (VSCT 101), Veterinary Clinical Pathology I (VSCT 112), and Fundamental Veterinary Nursing Skills II (VSCT 115), or permission of instructor.

VSCT 204 **LARGE ANIMAL MEDICINE AND THERAPEUTIC TECHNIQUES** *Fall, 2 credit hours*

A course designed to prepare the Veterinary Science student for a role in a large animal veterinary practice. The course includes records and legal forms commonly associated with large animal practice. Students will learn and practice skills associated with assisting the large animal practitioner. Presented material will focus upon areas of technician responsibility in the facility operations and management and methods for relieving the doctor of the more routine duties in favor of professional functions. Enrollment limited to Veterinary Science Technology students. One hour lecture, two hours laboratory per week. Prerequisites: Fundamental Veterinary Nursing Skills I (VSCT 101), Veterinary Clinical Pathology I (VSCT 112), and Fundamental Veterinary Nursing Skills II (VSCT 115), or permission of instructor.

VSCT 205 **RADIOGRAPHIC TECHNIQUES** *Fall, 2 credit hours*

This course is designed as an introduction to radiological techniques. Students will be required to position patients, calculate exposure values, expose radiographic film, and process films both manually and automatically. Students will examine radiographs taken by their groups and critique them for their diagnostic quality. Students will be instructed on radiation hazards and how to avoid them. Enrollment is limited to second year Veterinary Science Technology students. One hour lecture, two hours laboratory per week. Prerequisites: Fundamental Veterinary Nursing Skills I (VSCT 101), Animal Anatomy and Physiology (VSCT 114), and Fundamental Veterinary Nursing Skills II (VSCT 115), or permission of instructor.

VSCT 206 **ANESTHETIC PRINCIPLES** *Fall, 3 credit hours*

An introduction to anesthetic principles as they relate to animal medical and surgical care. The

student will be presented with information on basic preanesthetic agents, anesthetic agents, and anesthetic monitoring devices. The students will have hands-on experience with preanesthetic, anesthesia, and postanesthetic evaluation/monitoring techniques and devices. Students will be presented with the potential human and animal hazards associated with anesthetic drugs. CPR and the recognition and treatment of emergency situations will be addressed. In the laboratory, the student will medicate patients with many of the commonly used anesthetic drugs and compare/contrast their effects. Enrollment limited to Veterinary Science Technology students. Two hours lecture, two hours laboratory per week. Prerequisites: Fundamental Veterinary Nursing Skills I (VSCT 101), Veterinary Clinical Pathology I (VSCT 112), and Fundamental Veterinary Nursing Skills II (VSCT 115), or permission of instructor.

VSCT 207 **HEALTH AND DISEASE OF FARM ANIMALS** *Fall, 3 credit hours*

This course will acquaint students with the causes, development, control, eradication, and prevention of diseases of economic importance to the farm animal owner. Three hours lecture per week. Prerequisite: College-level biology or permission of instructor. Enrollment limited to Veterinary Science students.

VSCT 210 **VETERINARY MICROBIOLOGY** *Spring, 3 credit hours*

The focus of this course is the isolation and identification of pathogenic organisms encountered in animals and the diseases that they cause. Two hours lecture, two hours laboratory per week. Prerequisites: Microbiology (BIOL 209), Veterinary Clinical Pathology I (VSCT 112) and Veterinary Clinical Pathology II (VSCT 202), or permission of instructor.

VSCT 211 **ANIMAL HOSPITAL PRACTICES AND PROCEDURES** *Spring, 3 credit hours*

This course is considered the capstone course for the Veterinary Science Technology curriculum and is only open to students in their last semester of the program. This class creates an environment similar to that of a working veterinary practice and allows students to practice and further enhance the skills necessary for a licensed veterinary technician. During each class meeting, students are required to write graded assignments. They will also complete longer reflective papers as part of the semester assignment. Students are also required to research a case study and prepare a written reference paper and deliver an oral presentation using PowerPoint. During the laboratory, in small group settings, students perform standard duties of a veterinary technician in simulated conditions of a working veterinary practice. Skills reinforced include: surgical assisting, anesthesiology and patient monitoring, radiology, office procedures and client relationships, record keeping and laboratory testing. Students enrolling in this class are expected to perform at least two weeks of kennel duty. Enrollment is limited to Veterinary Science Technology students who have successfully completed all prior veterinary science courses. Students must successfully complete this writing intensive class to comply with the residency requirement. Two hours

Course Descriptions: VETERINARY, WOMEN'S STUDIES

lecture, two hours of laboratory per week.

VSCT 212 **RESEARCH ANIMAL TECHNIQUES** *Spring, 1 credit hour*

This course is a foundation course in developing skills necessary for employment in an animal research facility. Husbandry and clinical techniques specific to laboratory animals will be discussed. Emphasis will be on providing quality animal care, monitoring the health and well-being of laboratory animals, and understanding ethical issues surrounding animal research. Enrollment limited to Veterinary Science Technology students. Two hours laboratory per week.

VSCT 213 **PRACTICAL NUTRITION** *Spring, 2 credit hours*

This course is designed for Veterinary Science Technology majors. It will cover the feeding of animals in health and disease during various stages of the life cycle. Of primary concern will be the dietary management of specific diseases that affect small animals. Two hours lecture per week. This course is only open to fourth semester Veterinary Science Technology students who have successfully completed all prior Veterinary Science courses.

VSCT 214 **VETERINARY PHARMACOLOGY** *Spring, 2 credit hours*

This course is designed for Veterinary Science Technology students as an introduction to Pharmacology. The various classes of drugs used in Veterinary medicine will be discussed in regard to use, side effects, contraindications, method of administration, etc. Upon completion of this course, a student should have a working knowledge of the commonly used drugs in a veterinary hospital. One hour lecture, two hours laboratory per week. This course is only open to fourth semester Veterinary Science Technology students who have successfully completed all prior Veterinary Science courses.

VSCT 301 **VETERINARY HOSPITAL MANAGEMENT I** *Spring, 3 credit hours*

The purpose of this course is to provide the student with current information in veterinary practice management. Students will apply concepts, principles and skills they have learned in previous business and management courses to situations more specific to veterinary practice management. Topics include: Hospital Human Resource Management, Veterinary Law, Veterinary Hospital Revenue and Financial Control, Management of Veterinary Medical Records and Inventory Control. Three hours lecture per week. Prerequisites/corequisites: Junior level status and Foundations of Financial Accounting (ACCT 101), Foundations of Managerial Accounting (ACCT 102), Business Law I (BSAD 201), Small Business Management (BSAD 215), Human Resources Management (BSAD 310), and Management Communications (BSAD 340), or permission of instructor.

VSCT 302 **VETERINARY HOSPITAL MANAGEMENT II** *Fall, 3 credit hours*

This course is a continuation of Veterinary Hospital Management I (VSCT 301). The course will address issues facing a practice manager today. Topics include: veterinary hospital design, equipment acquisition, insurance, tax compliance, personal finance and investment. The course will also address the management of specific practice types and how they might differ from the conventional companion animal practice. Facilities such as: mobile clinics, large animal clinics, research animal facilities and animal shelters will be considered. Three hours lecture per week. Prerequisite: Veterinary Hospital Management I (VSCT 301) or permission of instructor.

VSCT 308 **VETERINARY SERVICES MANAGEMENT INTERNSHIP ORIENTATION** *Spring, 1 credit hour*

This course prepares students for the Internship for Veterinary Services Management, helps each student secure an appropriate internship location and establishes a contract between SUNY Canton, the internship site, and the student. One hour lecture per week. Prerequisite: Senior level status in the Veterinary Services Management program or permission of instructor.

VSCT 401 **ISSUES AND PERSPECTIVES IN VETERINARY MEDICINE** *Fall, 3 credit hours*

This writing intensive course will allow the student to explore legal, ethical, and ecological issues as they pertain to veterinary medicine and animal industries. Students will be required to thoroughly research topics and present their own thoughts and conclusions. Student research, debate, case studies, and other modalities will be used. Three hours lecture/recitation per week. Corequisites: Veterinary Hospital Management II (VSCT 302) and Veterinary Services Management Internship Orientation (VSCT 308), or permission of instructor.

VSCT 408 **INTERNSHIP FOR VETERINARY SERVICES MANAGEMENT** *Spring, 12 credit hours*

This course is intended to be a culminating experience for the student, building upon and reinforcing material of previous course work. Working in conjunction with a field supervisor, the student will perform delegated duties associated with those of a veterinary hospital manager or administrator. The internship will be individualized according to the career interests of the student and the needs of the supervising organization. Internship assignments may include informa-

tion gathering, analysis, planning, implementation, evaluation, and other responsibilities. The student must complete 40 hours of internship experience to receive one credit hour of course work (for a total of 12 credits). Prerequisite: All required math, accounting, business, health services management, and veterinary science courses or permission of the Program Director or Dean. Corequisite: Senior Seminar (HSMB 410).

WMST 201 **INTRODUCTION TO WOMEN'S STUDIES** *Fall and Spring, 3 credit hours*

This course provides a broad introduction to the field of Women's Studies. From an interdisciplinary approach, this course explores past and present theories and issues about women including, but not exclusive to, class, race, social justice, emancipation, economics, and education. Through a global perspective, students will be introduced to feminist ideology and methodology, as well as the causes and effects of gender inequality. Three hours lecture per week. Prerequisite: Expository Writing (ENGL 101) or Oral and Written Expression (ENGL 102); 30 credit hours earned; or permission of the instructor.

WMST 401 **CAPSTONE PROJECT IN WOMEN'S STUDIES** *Fall/Spring, 3 credit hours*

In this course, students will complete a senior research paper in the field of Women's Studies. With the guidance of the Women's Studies Coordinator and a committee of three faculty, students will complete numerous research components including, but not limited to, a research proposal, a literature review, rough draft, and final product. Three hours lecture per week. Prerequisites: Introduction to Women's Studies (WMST 201) and twelve credit hours earned toward Women's Studies Minor or permission of instructor.



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Buffalo, University at
Cornell, NYS College of Agriculture & Life Sciences
Cornell, NYS College of Human Ecology
Cornell, NYS College of Industrial Relations
Cornell, NYS College of Veterinary Medicine
Downstate Medical Center at Brooklyn
Environmental Science & Forestry (Syracuse)
Optometry, College of
Stony Brook
Upstate Medical University at Syracuse

UNIVERSITY COLLEGES

Brockport
Buffalo State
Cortland
Empire State
Fredonia
Geneseo
New Paltz
Old Westbury
Oneonta
Oswego
Plattsburgh
Potsdam
Purchase

TECHNOLOGY COLLEGES

Alfred State
Canton
Cobleskill
Delhi
Farmingdale
Maritime College
Morrisville
SUNY-IT

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Broome, Binghamton
Cayuga, Auburn
Clinton, Plattsburgh
Columbia-Greene, Hudson
Corning, Corning
Dutchess, Poughkeepsie
Erie, Williamsville, Buffalo and Orchard Park
Fashion Institute of Technology, New York City
Finger Lakes, Canandaigua
Fulton-Montgomery, Johnstown
Genesee, Batavia
Herkimer, Herkimer
Hudson Valley, Troy
Jamestown, Jamestown
Jefferson, Watertown
Mohawk Valley, Utica
Monroe, Rochester
Nassau, Garden City
Niagara, Sanborn
North Country, Saranac Lake
Onondaga, Syracuse
Orange County, Middletown
Rockland County, Suffern
Schenectady County, Schenectady
Suffolk County, Selden, Riverhead and Brentwood
Sullivan County Community College at Loch Sheldrake
Tompkins Cortland, Dryden
Ulster County, Stone Ridge
Westchester, Valhalla



ABOUT SUNY

The State University of New York's 64 geographically-dispersed campuses bring educational opportunity within commuting distance of virtually all New Yorkers and comprise the nation's largest comprehensive system of public higher education.

- The State University of New York's 64 campuses are divided into four categories, based on educational mission, the kinds of academic opportunities available, and degrees offered. They are: Community Colleges, Technology Colleges, Comprehensive Colleges, Research & University Centers.
- The State University offers students a wide diversity of educational options: short-term vocational/technical courses, certificate programs, baccalaureate degrees, graduate degrees and post-doctoral studies. The University offers access to almost every field of academic or professional study somewhere within the system—some 7,669 degree and certificate programs overall.
- With a total enrollment of more than 465,000, students are pursuing traditional study in classrooms and laboratories or are working at home, at their own pace,

through such innovative institutions as the SUNY Learning Network and Empire State College.

- The State University's students are predominantly New York State residents, representing every one of the state's 62 counties. State University of New York students also come from every other state in the United States, from four U.S. territories or possessions, and 168 foreign countries.
- The State University enrolls one out of three New York State high school graduates, and its total enrollment of 465,000 (full-time and part-time) is approximately 37 percent of the state's entire higher education student population.
- SUNY students represent the society that surrounds them. In Fall 2009, 20.8 percent of all students were minorities. In Fall 2009, full-time minority faculty members made up more than 12 percent of all full-time SUNY faculty.
- As of Fall 2009, the University numbers 2.5 million graduates on its rolls. The majority of the University's alumni reside and pursue careers in communities across New York State, contributing to the economic and social vitality of its people, but

SUNY also has alumni around the world.

- SUNY is committed to bringing its students the very best and brightest scholars, scientists, artists and professionals. State University campuses boast nationally and internationally-recognized figures in all the major disciplines. Their efforts are regularly recognized in numerous prestigious awards and honors.

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Established in 1973, the Canton College Foundation, Inc., was founded for the purpose of soliciting and receiving gifts for scholarships, work grants, equipment, and all types of real or personal property to support the College's mission by promoting progress, encouraging professional growth, and cultivating a sense of community dedicated to the highest quality education.

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Consumer Complaint Procedure

LOCAL PROCEDURE

Any person who believes he/she has been aggrieved by the College may file a complaint with the Dean of Students within ninety (90) days of the alleged occurrence or event giving rise to the grievance. Complaints may be made in person, by telephone or in writing. You will be asked to discuss your problem with a responsible college representative, one who may best be able to resolve your concerns. **Students are also reminded of specific procedures for filing academic complaints or allegations of sexual harassment found in the *Student Handbook*.**

In response to a written complaint, the College shall investigate the allegations and respond to the grievant in a timely manner. The College may contact the grievant for further information or clarification of the complaint should the need arise. The complaint may be referred to a responsible campus official for resolution; any final determination of a formal complaint will be made by an individual not directly involved in the alleged problem.

No adverse action will be taken by the College against the student or other complainant.

The College will maintain a written record of the complaint and its resolution or disposition, including appropriate documentation, for a period of six years. Such file shall be retained in the Office of the Dean of Students.

If a grievant wishes, he/she may file a formal written complaint with the State Education Department in accordance with their guidelines (see below). An official complaint form and guidelines are available in the Office of the Dean of Students.

STATE EDUCATION DEPARTMENT PROCEDURES

Section 494C(j) of the Higher Education Act of 1965, as amended, provides that a

student, faculty member or any other person who believes he/she has been aggrieved by an institution of higher education has the right to file a written complaint.

In New York State, a complaint may be filed by any person with reason to believe that an institution has acted contrary to its published standards or that conditions at the institution appear to jeopardize the quality of the institution's instructional programs or the general welfare of its students. Any person who believes he/she has been aggrieved by an institution on or after May 4, 1994, may file a written complaint with the Department within three years of the alleged incident.

HOW TO FILE A COMPLAINT

1. The person should first try to resolve the complaint directly with the institution by following the internal complaint procedure listed above. An institution of higher education is required to publish its internal complaint procedure in a primary information document such as the catalog or student handbook. (The Department suggests that the complainant keep copies of all correspondence with the institution.)
2. If a person is unable to resolve the complaint with the institution or believes that the institution has not properly addressed the concerns, he/she may write or telephone the Postsecondary Complaint Registry to request a complaint form. Telephone (212) 951-6493 or write to: New York State Education Department, Postsecondary Complaint Registry, One Park Avenue, 6th Floor, New York, NY 10016.
3. The Postsecondary Complaint Registry Form should be completed, signed, and sent to the above address. The completed form should indicate the resolution being sought and any efforts that have been made to resolve the complaint through the institution's internal complaint pro-

cess. Copies of all relevant documents should be included.

4. After receiving the completed form, the Department will notify the complainant of its receipt and make any necessary request for further information. When appropriate, the Department will also advise the institution that a complaint has been made and, when appropriate, the nature of the complaint. The complainant will also be notified of the name of the evaluator assigned to address the specific complaint. The evaluator may contact the complainant for additional information.
5. The Department will make every effort to address and resolve complaints within ninety days of receipt of the complaint form.

COMPLAINT RESOLUTION

Some complaints may fall within the jurisdiction of an agency or organization other than the State Education Department. These complaints will be referred to the entity with appropriate jurisdiction. When a complaint concerns a matter that falls solely within the jurisdiction of the institution of higher education, the complainant will be notified and the Department will refer the complainant to the institution in question and request that the matter receive a review and response.

Upon conclusion of the Department's complaint review or upon a disposition of the complaint by referral to another agency or organization, or to the institution of higher education, the Department will issue a written notice to the complainant describing the resolution of the complaint. The complainant may contact the Department evaluator directly for follow-up information or for additional assistance.

A.A. DEGREE

Associate in Arts degree. A transfer degree requiring at least 45 hours of liberal arts courses. Students in the Liberal Arts and Sciences: General Studies program have an option of enrolling in the A.A. or the A.S. degree program.

A.A.S. DEGREE

Associate in Applied Science degree. A career degree preparing students for employment upon completion of the SUNY Canton program or enrollment in an applied baccalaureate degree. Requirements include at least 20 hours of liberal arts courses while the remaining courses provide the training needed for the student's chosen career field. Many four-year colleges accept graduates with A.A.S. degrees.

ACADEMIC PROBATION

A designation by the Dean of the appropriate School for a student with less than satisfactory academic progress. Students on academic probation must follow a plan designed to improve their performance.

APPLIED ELECTIVE

A college course outside of the liberal arts and sciences disciplines.

ARTICULATION AGREEMENTS

Formal agreements between SUNY Canton and bachelor degree-granting colleges, community colleges, or high schools describing conditions for transfer such as GPA and program or course requirements.

A.S. DEGREE

Associate in Science degree. A transfer degree requiring at least 30 credit hours of liberal arts courses. The remainder of the courses selected are based on the student's intended transfer major.

ASSOCIATE DEGREES

Degrees which require a minimum of 60 credit hours (excluding physical education) and may be completed in two years of full-time study.

BACCALAUREATE DEGREES

Degrees which are completed in approximately four years of full-time study, generally including 120 to 128 credit hours. They require two years of study at a transfer college after graduating from SUNY Canton or enrollment in one of SUNY Canton's baccalaureate degree programs, designed for graduates of an A.A.S. program or freshmen interested in an applied baccalaureate degree.

CERTIFICATE PROGRAMS

Students completing an organized program of courses, approved by SUNY and registered by the State Education Department, are awarded certificate diplomas. These programs develop skills in a particular discipline or occupational specialty. Certificate programs have minimum credit hour and GPA requirements specific to each program. Certificate programs may require some course work in mathematics, humanities, and science.

Local Certificates: SUNY Canton may recognize students who success-

fully complete a specified sequence or cluster of approved, credit courses by awarding a local certificate of completion. Such awards of themselves are not registered, aid-eligible programs and are not transcribed. Local certificates shall be subject to review and approval by the established faculty governance process for curricular matters.

COURSE OUTLINE

Detailed description and content of a course. Copies are housed in the School Deans' Offices.

CREDIT HOUR

Courses are assigned one or more credit hours or equivalent credit hours. A credit hour is defined as three hours work per week per semester in any combination of class, laboratory and outside study time. Equivalent credit hours are awarded in courses which are not applicable to an associate or baccalaureate degree.

CURRICULUM (also Program or Major)

All courses offered. Also refers to an academic program and the full scope of courses needed to complete it.

EQUIVALENT CREDIT HOURS

When the content of a course is developmental and not considered college level, equivalent credit hours are earned and are not counted toward degree requirement. They may count toward certificate requirements.

FRESHMAN

A student who has earned 0 - 30 credit hours, all of which must be a part of a degree program offered by the College.

FULL-TIME STUDENT

Anyone enrolled for twelve or more credit hours or equivalent credit in a semester. A typical course load would be 15 credit hours per semester or approximately five courses.

GENERAL EDUCATION REQUIREMENTS

The ten Knowledge and Skills Areas (GER 1-10) and the two Competencies designated by SUNY as required for graduation with a baccalaureate degree. Knowledge and Skill Areas: Mathematics; Natural Sciences; Social Sciences; American History; Western Civilization; Other World Civilizations; Humanities; The Arts; Foreign Language; Basic Communication. Competencies: Critical Thinking and Information Management.

GENERAL ELECTIVE

Any college course may serve as a general elective if it meets the minimum requirements of a curriculum. Exceptions may include physical education courses, equivalent credit courses, or courses designated for a particular program only.

GOOD STANDING

Students who meet the minimum requirements of the Student Academic Re-registration Policy are considered to be students in good standing.

GPA (Grade Point Average)

For each credit hour, points are assigned based on the grade received. This average is calculated by dividing the total grade points earned by the number of credit hours taken.

HUMANITIES

Art; music; foreign languages; philosophy; most 200-level English, media communication, speech, or theater courses; and courses with the prefix HUMA.

JUNIOR

A student who has earned 61 - 90 credit hours, all of which must be a part of a degree program offered by the College.

LABORATORY SCIENCE

Any science course which has a laboratory experience along with lectures. Examples include biology, chemistry, environmental science, and physics.

LIBERAL ARTS ELECTIVE

Any course from the areas of humanities, sciences, mathematics, and social sciences.

LOAD

The total number of credit and equivalent credit courses for which a student has registered. Example: a registration of 9 credit hours and 4 equivalent credit hours equals a load of 13 hours.

MATRICULATION

This is a process that involves application to the College, admission to a specific academic program and enrollment in courses. An advantage of matriculation is that you officially come under the set of regulations described in the catalog in effect at the date of your matriculation. You must be matriculated to receive financial aid.

OCCUPATIONAL

A.A.S. degrees are generally considered occupational degrees. Students in these programs are preparing for a career or job upon graduation from SUNY Canton or to continue in a bachelor's degree program.

PART-TIME STUDENT

Anyone who is enrolled in fewer than twelve credit hours in a semester.

PEDAGOGY

The science or art of teaching or education.

PREREQUISITE

A requirement that must be met before a student may take a course. Each course description indicates whether there is a prerequisite.

PROGRAM ELECTIVE

A course from a program-related discipline designated by that program. Each degree program specifies the disciplines applicable to that program.

RECITATION

In addition to lectures and laboratories, some courses require a recitation, which is an individual or small group meeting with an instructor.

SENIOR

A student who has earned 91+ credit hours, all of which must be part of a degree program offered by the College.

SOPHOMORE

A student who has earned 31 - 60 credit hours, all of which must be a part of a degree program offered by the College.

SOCIAL SCIENCES

Anthropology, economics, geography, government, history, psychology, sociology, or political science.

SUSPENSION

Students who do not meet minimum academic requirements for returning and are dismissed from the College for at least one semester

SUNY

All of the units of the State University of New York, including Canton.

SYLLABUS

A statement of the requirements for a course and the course material to be covered. Each professor should distribute a syllabus in the first week of class.

TRANSCRIPT

An official copy of the permanent record of every course taken and the resulting grades. This permanent record is maintained in the Registrar's Office.

TRANSFER PROGRAM

Programs which are generally designed for students who want to continue their studies toward a baccalaureate degree. Programs which lead to the A.A. (Associate in Arts) and the A.S. (Associate in Science) degrees transfer easily into B.A. (Bachelor of Arts), B.S. (Bachelor of Science), or B.Tech. (Bachelor of Technology) degrees.

WITHDRAWAL FROM THE COLLEGE

Official notification to the College that a student will not complete the semester. A form obtained at the Registrar's Office must be completed. Grades of "W" are recorded for all courses in progress at the time of the withdrawal.

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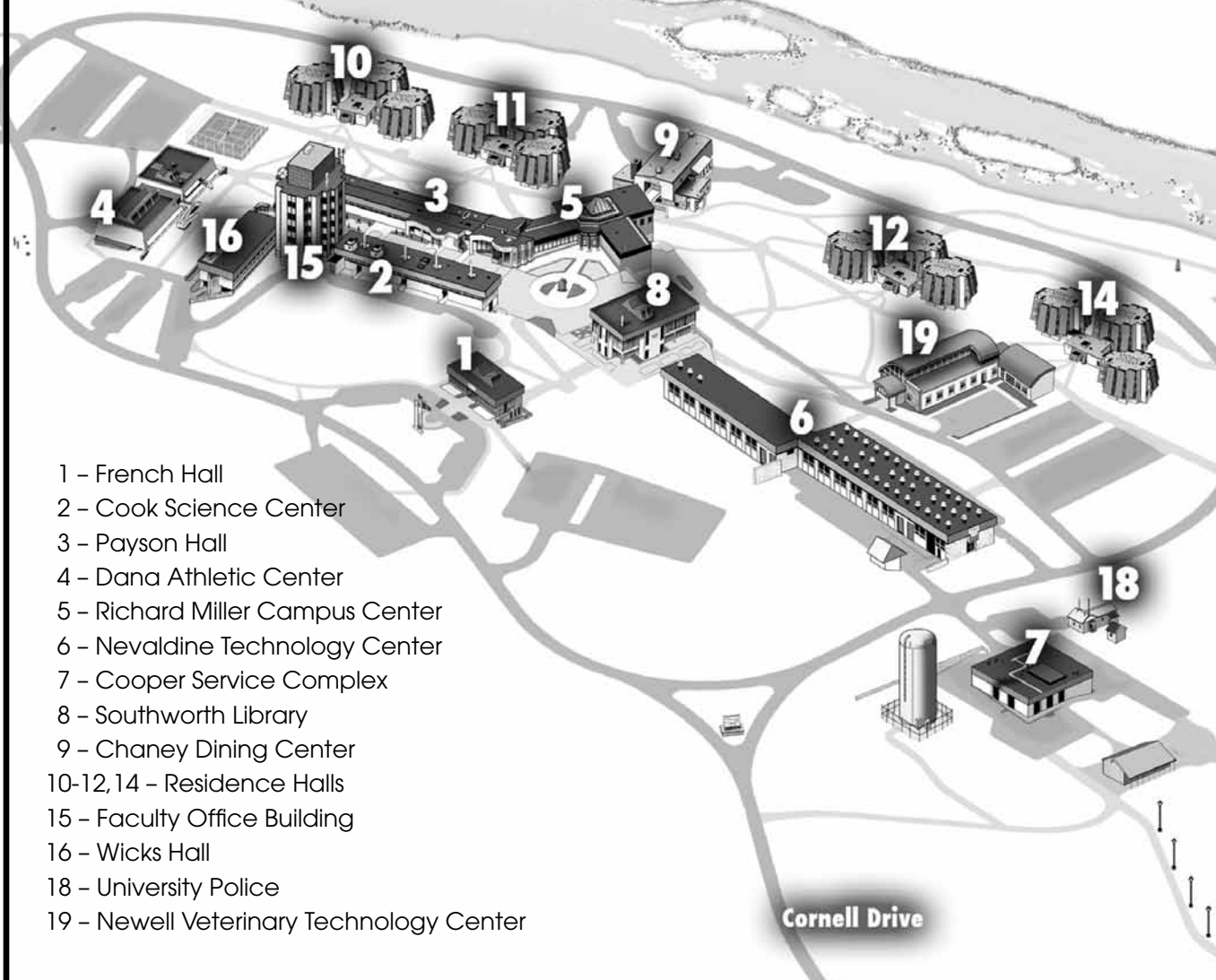
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SUNY Canton Campus Map



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