

**STATE UNIVERSITY OF NEW YORK
INSTITUTE OF TECHNOLOGY**



**GRADUATE CATALOG
2007-2009**



President's Message



Welcome!

The State University of New York Institute of Technology – SUNYIT – is unique among the campuses of the largest public system of higher education in the nation, the State University of New York.

Founded in 1966, SUNYIT provides high quality undergraduate and graduate degree programs in technology, professional studies, and the liberal arts. Opportunities abound for graduate and undergraduate students from all over the U.S. and around the world.

Providing quality, affordable education for some 2,500 students, SUNYIT is situated on 800 acres of Central New York's most beautiful terrain – in the foothills of the Adirondacks. Our students and faculty enjoy 21st century academic facilities in a picturesque, natural setting.

This catalog will provide you with a wealth of information about our graduate degree programs, and our faculty and staff will be glad to answer any questions you may have. On behalf of the SUNYIT family, I wish you the best in all your endeavors.

Sincerely,

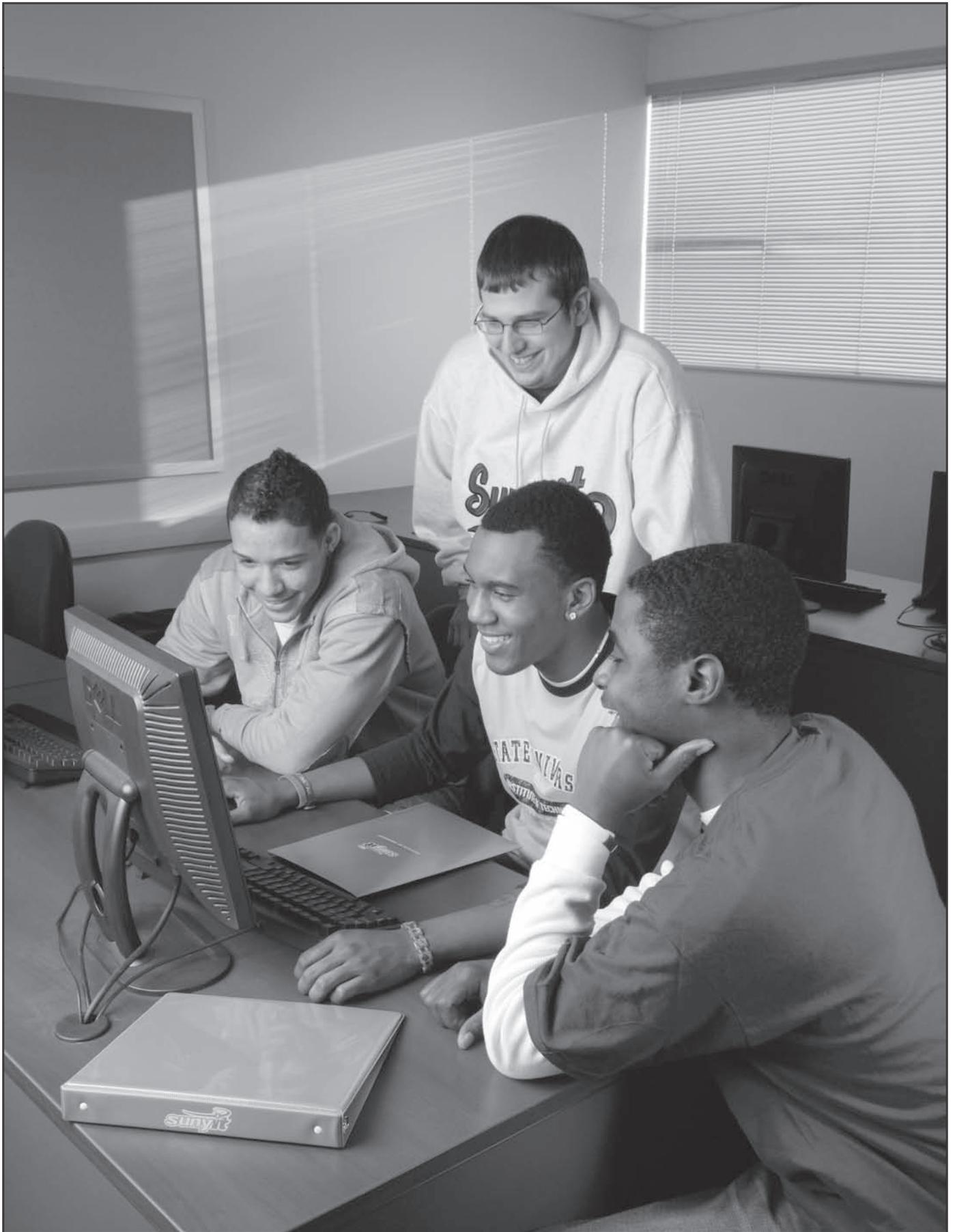
A handwritten signature in black ink that reads "Peter A. Spina". The signature is written in a cursive style with a long horizontal flourish at the end.

Dr. Peter A. Spina
President

This catalog represents course offerings and requirements in effect at the time of publication. Current information may be obtained from the appropriate academic and administrative offices.

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About SUNYIT

The State University of New York Institute of Technology (SUNYIT) marked the 40th anniversary of its founding in 2006-2007. About 2,500 students are enrolled in undergraduate and graduate degree programs in technology, professional studies, and the liberal arts on the SUNYIT campus, a high-tech learning environment on more than 800 acres in Marcy, N.Y., minutes from NYS Thruway Exit 31, Utica. SUNYIT students come from all over New York, many other states, and more than 20 other nations; a growing number of students also take SUNYIT courses and, in some cases, entire degree programs online.

Established by the SUNY Board of Trustees on June 14, 1966, SUNYIT is the State University's only institute of technology. Originally a graduate and upper-division institution, the college offered classes in temporary locations and at extension sites for several years until the first buildings were constructed on the permanent campus in the 1980s. State legislators have approved funding for two major campus buildings: a \$20 million field house, and a \$13 million student center. Planning is underway for both. The first building constructed on the campus, Kunsela Hall, is undergoing a multi-million dollar renovation scheduled for completion in 2007.

At SUNYIT, students are mentored by experienced faculty in small classes, many with fewer than 20 students. Through internships, close cooperation with employers, and an annual career fair, graduates enjoy extraordinarily high placement rates. In addition to their commitment to quality teaching, faculty engage in scholarly research including collaborative efforts with the Air Force Research Laboratory in Rome, N.Y.

Apart from their excellent academic experience, SUNYIT students enjoy campus life in highly rated residence halls. The campus's two residential complexes—Mohawk and Adirondack Halls—offer the privacy and convenience of apartments, with students sharing suites in townhouse-style buildings. Students themselves have rated their residential experience highly in SUNY student opinion surveys.

Life on campus also features a full menu of recreational and cultural experiences. The Campus Center houses a gymnasium, racquetball courts, fully-equipped exercise and weight rooms, a swimming pool, saunas, and a 400-seat dining hall. SUNYIT is a member of the National Collegiate Athletic Association (NCAA), the Eastern Collegiate Athletic Conference (ECAC), and the SUNY Athletic Conference (SUNYAC). NCAA Division III athletics (men's and women's basketball, cross country, soccer, swimming, and volleyball; men's baseball and golf; and women's bowling and softball) and intramurals are complemented by entertainment, activities and community-building experiences that support and sustain a unique campus culture.

The campus is home to a U.S. Department of Defense Reliability Information Analysis Center (RIAC), a \$19 million project operated under the auspices of a team comprising: Wyle Laboratories, Inc., of Huntsville, Ala.; SUNYIT; Quanterion Solutions Incorporated of Utica, N.Y.; the University of Maryland; and The Pennsylvania State University.

SUNYIT is also the lead agency in the Mohawk Valley National Information Technology Apprenticeship System (NITAS) Consortium in partnership with the Workforce Investment Board (WIB) of Herkimer, Madison and Oneida Counties. NITAS combines classroom training, on-the-job learning and industry certifications to produce a qualified pool of IT professionals to meet projected regional IT sector job growth needs and increase the skills of the regional workforce. NITAS provides mentored internships for SUNYIT students in several programs.

The SUNYIT campus is a resource for the region in a variety of ways. Hundreds of senior citizens take part in lifelong-learning courses each year as part of the Mohawk Valley Institute for Learning in Retirement. Business owners and entrepreneurs have obtained help, advice and services from the Small Business Development Center at SUNYIT, one of 23 campus-based regional centers and 50 outreach offices in New York State providing expert management and technical assistance to solve business problems and foster entrepreneurship.

SUNYIT's more than 20,000 alumni are enjoying successful careers in many fields across the country and around the world. With a growing number of degree programs and the continuing development of the campus, SUNYIT continues to build on four decades of providing affordable, quality education and service as part of the nation's largest comprehensive system of public higher education, the State University of New York.

Utica and the Mohawk Valley

Located at the western end of the Mohawk Valley, Utica is the natural gateway to the beautiful Adirondack Mountains and scenic Thousand Islands. The city lies near New York State's geographic center; it is 233 miles from New York City, 190 miles from Buffalo, 100 miles south of the St. Lawrence River, 90 miles north of Binghamton, 90 miles west of Albany (the state capital), and 50 miles east of Syracuse. Utica is a regional transportation hub; visitors can arrive by air (at Hancock International Airport in Syracuse), train or bus (Amtrak and Greyhound service to Utica's historic Union Station), or car (the New York State Thruway or state routes 5, 8, 12).

Utica is a city steeped in history—from the American Revolution through the Industrial Revolution—and is both rich in cultural diversity and supportive of the performing and decorative arts. The city is home to the internationally-recognized Munson-Williams-Proctor Arts Institute, the Utica Symphony Orchestra, Broadway Theater League, and the Stanley Performing Arts Center. Within the city limits are more than 900 acres of parks, the Utica Zoo, a municipal ski facility and youth recreation center, along with facilities for ice skating, golf, tennis, swimming, hiking, and other recreational activities.

Utica is home to the National Distance Running Hall of Fame, and hosts one of the sport's premiere events the second Sunday of July: the Boilermaker Road Race. The race attracts the world's elite runners in an annual field of nearly 10,000 participants; it is the largest 15-kilometer run in the nation.

Additional recreation and entertainment attractions are a short drive from Utica, including: Woods Valley, Snow Ridge, McCauley Mountain and Schumacher Mountain ski resorts; Hinckley, Delta and Oneida Lakes, popular fishing and boating locations; and, hundreds of Adirondack lakes, parks, campgrounds, hiking trails, and scenic views.

With its history, natural beauty, and vibrant communities, the region enjoys numerous social, cultural, and recreational opportunities.

Admissions

Application Information

An application for admission to graduate study at SUNYIT must be filed, along with all supporting documents to the Admissions Office. It is suggested that fall semester applications be submitted by June 1; applications for spring semester admission should be filed by December 1.

Admission to graduate study involves the following:

- **Application/Application Fee**
Submit the Graduate Application and a \$50.00 application processing fee (payable to SUNY Institute of Technology) to the Admissions Office. Applicants must indicate choice of program as well as choice of concentration (if applicable) when applying.
- **Transcripts**
Graduates of colleges other than SUNYIT must forward official transcripts of all undergraduate and graduate work to the Admissions Office. A bachelors degree is required for consideration. A minimum 3.0 undergraduate GPA is typically required for admission.
- **GRE/GMAT Scores**
GRE/General Test scores are required for Advanced Technology, Computer Science and Telecommunications.
GMAT Test scores are required for Accountancy and Technology Management. GMAT or GRE test scores are required for Health Services Administration.
- **Professional References**
Professional references must be submitted for an admission decision to be rendered.
One letter of reference is required for the following programs: Accountancy, Computer Science, Health Services Administration and Technology Management.
Two letters are required for the following programs: Information Design and Technology, Gerontological Nurse Practitioner, Nursing Education, Nursing Administration, Adult Nurse Practitioner, and Family Nurse Practitioner.
Three letters are required for the following programs: Applied Sociology, Telecommunications and Advanced Technology (1-3 letters for MSAT).
- **Narrative Statement**
Narrative statement of objectives for graduate study must be submitted for the following programs: Advanced Technology, Applied Sociology, Adult Nurse Practitioner, Family Nurse Practitioner, Information Design and Technology, Nursing Administration and Telecommunications. Refer to back page of this catalog.
- **Nursing Administration, Family Nurse Practitioner, Adult Nurse Practitioner, Gerontological Nurse Practitioner and Nursing Education applicants** must also submit: A) a transcript demonstrating successful completion of a basic statistics course, and an undergraduate health assessment course, (for Family, Adult and Gerontological Nurse Practitioner applicants only), and B) evidence of current licensure as a registered professional nurse in New York State.
- **Interview**
A personal interview with a faculty member is required for MS applicants within the School of Nursing and Health Systems. A personal interview with the Admissions Office is encouraged as part of the admissions process for all graduate programs. An interview may be required for marginal applicants.

Once the Admissions Office receives all required documents, the credentials will be reviewed and a final decision will be forwarded to the applicant. After formal admission to degree standings, a student will be assigned a faculty advisor. Questions regarding admission should be referred directly to the Admissions Office at SUNYIT.

Readmission

Students seeking readmission to SUNYIT must file a readmission petition form with the Admissions Office. Readmission is required if you have been out for three consecutive semesters.

Change of Program

If a student currently enrolled in a specific degree program desires to change from one department/school to another, an application form for the new program must be submitted to the Admission's Office.

Withdrawal

Students who withdraw from SUNYIT, for any reason, are responsible for officially clearing all records and obligations. Appropriate forms and procedures may be obtained from the Registrar's Office.

Leave of Absence

Leave of absence for a specified period of time may be granted to a student not subject to academic dismissal. A student applying for a leave of absence must give a definite date for re-registration at SUNYIT. A student not returning for re-registration within the specified time will be classified as an official withdrawal. Application for a leave of absence must be made to the dean of the school in which the student is enrolled.

Degree Requirements

Policies, procedures and degree requirements for the graduate programs are in agreement with SUNYIT policies for graduate study as stated in the Graduate Studies Policies and Procedures Manual. Within that framework, each program is autonomous in establishing specific degree requirements. Individual program policies and procedures may be reviewed in the individual program descriptions.

Time Limit on Completing Degree Requirements

Courses completed more than seven (7) years before the term in which the degree is awarded may not be used for credit toward the advanced degree. In the event that attendance has been interrupted due to extenuating circumstances, exceptions may be made by the department/schools with approval of the Executive Vice President for Academic Affairs.

Degree requirements are determined by the catalog under which the student is initially matriculated, and remain in force if the student maintains continuous matriculation. A student who discontinues enrollment for one year or more may apply for readmission and then fulfill the degree requirements in effect at that time.

Non-Degree Study

Students may take graduate courses for which they have met the prerequisites without formal admission to the degree program, on a space-available basis. A maximum of six credit hours is recommended for non-degree study. Permission of the dean of the school in which the graduate course is taught is required before a non-matriculated student may register. Students may choose to continue taking coursework above the six hour total if permitted, but may not take more than 12 hours before matriculating in their program of study. The maximum number of non-matriculated credits permitted varies from program to program. Graduate coursework taken while in non-degree status may be applicable to the degree program upon formal admission, **however, there is no guarantee of credit applicability or admission by completing coursework in non-degree status.**

Transfer of Graduate Credit

1. Students seeking transfer credit, at the time of admission, must provide official transcripts to the Admissions Office at SUNYIT.
2. Only graduate courses with a grade of A or B are transferable. Transfer credit will not be included in the computation of a graduate student's grade point average.
3. A maximum of six hours of graduate work may be accepted for transfer credit by SUNYIT, with the exception of the School of Nursing and Health Systems major in Adult Nurse Practitioner, Family Nurse Practitioner, Gerontological Nurse Practitioner, or Nursing Education which accepts up to 12 credits. A maximum of 12 hours of graduate coursework may also be accepted for Technology Management (MBA) students.
4. If, after being admitted to a degree program, a student wishes to transfer courses from another institution, he or she must submit an academic petition to his or her advisor. A petition requesting such approval must include institution name, catalog number, title, and description of each course being proposed for transfer credit. Upon completion of the course, an official transcript must be sent to the Registrar's Office at SUNYIT. A copy will be forwarded to the appropriate academic school.

Residency Requirements

Students in graduate degree programs must complete at least 27 semester hours of graduate credit in residence at SUNYIT. It should be noted that bridge coursework required for the computer science program cannot be applied to this requirement.

Full-Time/Part-Time Graduate Status

A full-time student is one who has registered for a minimum of 12 credit hours per semester. Students awarded graduate assistantships are classified as full-time students when enrolled for nine credit hours of graduate coursework per semester. The maximum student load is considered 15 graduate credit hours per semester.

A part-time graduate student is one who is registered for less than 12 credit hours per semester.

International Students

In addition to admission requirements pertaining to graduate study, international students must also submit satisfactory scores from the Test of English as a Foreign Language (TOEFL) unless they have graduated from a U.S. College/University. The minimum acceptable score for admission is 550 for paper-based tests, 213 on the computer based exam and 79 on internet based exam. Students with TOEFL scores below 550 may submit other proof of English proficiency (i.e., strong GRE/GMAT scores relevant to English language proficiency, or evidence of prior successful study in an English speaking college or university). English language proficiency will be evaluated on an individual basis. International students may be required to have their transcripts evaluated by World Education Services (WES) to determine U.S. credit equivalencies. Contact admissions for information pertaining to foreign student requirements/visa. The application deadline for International Students applying for fall is June 1. The application deadline for spring applicants is November 1. Applicants should write their name as it appears on their passport. This school is authorized under Federal law to enroll nonimmigrant students. International students are required to attend an orientation prior to the start of classes. An International Orientation fee will be assessed.

Standardized Examinations

Graduate Record Examination

Scores from the Graduate Record Examination (GRE/General Test) are required for the graduate programs in advanced technology, computer science, telecommunications and health services administration (GMAT preferred). The GRE is administered through the Educational Testing Service. The aptitude test is a 3 1/2-hour examination which measures general scholastic ability at the graduate level and yields separate scores for verbal reasoning, quantitative reasoning, and analytical writing abilities. Please note that the proper code number (2896) must be used for scores to be reported to SUNYIT.

These examinations are offered through computer-based testing. Score reports take approximately four to six weeks to reach the Admissions Office. Students should, therefore, register for the examination in time for the scores to reach the Admissions Office by the appropriate application dates.

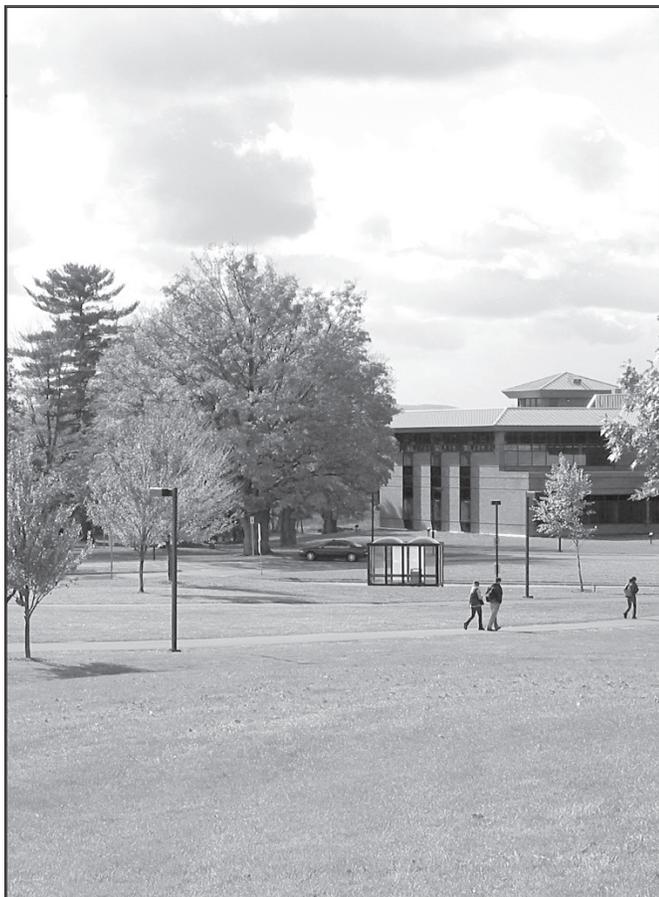
Further information may be found in the GRE Information Bulletin available at the Admissions Office, or by calling GRE at 1-866-473-4373; or on-line at www.ets.org.

Graduate Management Admission Test

Scores from the Graduate Management Admission Test (GMAT) are required for the accountancy, technology management, and health services administration (or GRE) programs. The GMAT is a 3 1/2-hour aptitude test designed to measure certain academic skills important in the study of management at the graduate level. This test does not measure judgment or knowledge in any specific subject matter, and those who take it are neither required nor expected to have undergraduate preparation in business subjects.

The GMAT is offered exclusively through computer-based testing. Scores are sent to the Admissions Office by the Educational Testing Service (ETS) four to six weeks after each test date. Applicants should, therefore, take care to register for the examination in time for the scores to reach the Admissions Office before the appropriate deadline dates. Please note that the proper code number (2896) must be used for scores reported to the Admissions Office at SUNYIT.

Further information may be found in the GMAT booklet, available at the Admissions Office or on-line at www.mba.com.



Graduate Student Housing

The Residential Life Office is proud to offer housing to graduate students in SUNYIT's highly rated townhouse apartments.

Each apartment provides accommodations for up to four students, offering either single or double bedroom apartments.

A number of these apartments are handicap accessible. Student bedrooms are equipped with access to state-of-the-art computer network and telephone service that provides students contact with the SUNYIT community and the entire world.

On-campus housing requires a room deposit of \$100 at the time an accepted student requests campus housing.

The housing deposit is not refundable after May 1 for the fall semester. However, if a student deposit is accepted after May 1, a refund request will be considered for up to 30 days after payment of the deposit. For the spring semester, the housing deposit is not refundable after 30 days following payment of the deposit. 2007-2008 semester rates for on-campus housing meal plans are as follows:

Combined Room and Board Rates 2007-08 Per Semester

| <i>Room</i> | <i>Meal Plan</i> | <i>Basic</i> |
|-------------|---------------------------------|--------------|
| Single | 19/week (includes 100 pts) | \$4,315 |
| Single | 14/week (includes 100 pts) | \$4,205 |
| Single | 125/semester (includes 200 pts) | \$4,260 |
| Single | 100/semester (includes 400 pts) | \$4,285 |
| Double | 19/week (includes 100 pts) | \$3,975 |
| Double | 14/week (includes 100 pts) | \$3,865 |
| Double | 125/semester (includes 200 pts) | \$3,920 |
| Double | 100/semester (includes 400 pts) | \$3,945 |

The Campus Life Office also provides assistance to SUNYIT students in locating housing in the Utica-Rome area; including information available apartment/housing and providing individual advisement in such diverse areas as lease reading, conflict resolution, and budgeting.

Students have found the office to be a valuable resource in securing comfortable and economical housing. Appointments may be made in the Campus Life Office throughout the year.

Academic Programs—HEGIS Code

The Higher Education General Information System (HEGIS) Taxonomy is a nationally accepted classification scheme for assuring consistency in the curriculum content of courses leading to a degree within a given HEGIS discipline category. Thus, the concept of "information science" is the same for the person studying for a degree in computer and information science, classification number 0701, whether the degree is pursued at SUNYIT or at another institution. Enrollment in other than the following registered, or otherwise approved, programs may jeopardize eligibility for certain student aid awards.

| <i>HEGIS</i> | <i>Classification</i> | <i>Degree</i> |
|--------------|-----------------------------------|--|
| 0502 | Accountancy | M.S. Master of Science |
| 0925 | Advanced Technology | M.S. Master of Science |
| 2208 | Applied Sociology | M.S. Master of Science |
| 0506 | Business Management | M.S. Master of Science |
| 0701 | Computer and Information Science | M.S. Master of Science |
| 1203.10 | Family Nurse Practitioner | M.S. Master of Science |
| | Family Nurse Practitioner | Advanced Certificate |
| 1203.10 | Gerontological Nurse Practitioner | M.S. Master of Science |
| | Gerontological Nurse Practitioner | Advanced Certificate |
| 1203.10 | Nursing Education | M.S. Master of Science |
| | Nursing Education | Advanced Certificate |
| 1202 | Health Services Administration | M.S. Master of Science |
| 0799 | Information Design and Technology | M.S. Master of Science |
| 1203.10 | Nursing Administration | M.S. Master of Science |
| 1203.10 | Adult Nurse Practitioner | M.S. Master of Science |
| | Adult Nurse Practitioner | Advanced Certificate |
| 0599 | Technology Management | M.B.A. Master of Business Administration |
| 0799 | Telecommunications | M.S. Master of Science |

Health & Wellness Center

The Health and Wellness Center, conveniently located in the Campus Center, provides evaluation, treatment and prevention of health-related problems for full-time, part-time, undergraduate and graduate students. The Health and Wellness Center is staffed by a part-time physician, nurse practitioners, registered nurses, a health educator and support personnel. It is open daily Monday through Friday with the hours posted each semester.

SUNYIT is supported through a mandatory health fee each semester. This fee provides each student comprehensive, confidential health-related services by appointment or walk-in basis at the Health and Wellness Center. Not to be confused with the mandatory health insurance fee that covers off-campus health care services. Some services provided by the mandatory health fee include:

Clinical Services:

- Sick/Injury Care - medical evaluation, treatment & follow-up medical care
- Vaccinations - MMR, Influenza, etc.
- Women's and Men's Health - GYN examinations, birth control, STD testing, etc.
- Blood work/laboratory work - throat cultures, HIV, etc.
- Medications - prescription & over the counter
- Medical Equipment/Supplies/Other - crutches, band-aids, cough drops, etc.
- Referrals - to private practitioners, community agencies, etc.

Health Education:

- Free, confidential HIV testing & counseling
- Alcohol/substance abuse screening & counseling
- Current health-related educational literature/resources
- Appropriate health guidance with necessary referral
- Prevention focused programs
- Peer education programs
- Smoking cessation assistance & counseling

Student Health Requirements for Attending SUNYIT:

All students are REQUIRED to provide the following health documents to the Health and Wellness Center PRIOR TO ATTENDANCE.

- 1. Immunizations - Mandatory for all students registered for six (6) or more credits. Non-compliant students will be de-registered pursuant to the directives of the law.**

- a) Measles, Mumps and Rubella (MMR)** - NYS Health Law § 2165 requires all on campus students provide documentation of immunity to MMR. Persons born prior to 1/1/57 are exempt.

Required documentation:

- ✓ **Measles:** Two dates of immunization given after 1967 AND on/or after the 1st birthday
 - ✓ **Mumps:** One date of immunization given on/or after the 1st birthday
 - ✓ **Rubella:** One date of immunization given on/or after the 1st birthday
- OR**
- ✓ **Titers:** Date AND positive results of the measles titer, and/or mumps titer and/or rubella titer

- b) Meningococcal Meningitis** - NYS Health Law § 2167 requires all on or off campus students provide the following documentation:

- ✓ One date of the meningococcal immunization given within the past 10 years

OR

- ✓ Completion of the Meningococcal Information Response Form indicating acknowledgement of meningococcal disease risks and refusal of the meningococcal meningitis immunization signed by the student (or student's parent/guardian if under 18 years old). The Meningococcal Information Response Form is enclosed in the admission packet.

- 2. Health History and Physical Examination within the last two (2) years - Mandatory for all students registered for twelve (12) or more credits.** The student may only receive clinical services at the Health & Wellness Center after the health history and physical examination have been submitted. Full-time students will not be permitted to register for another term until this health requirement has been met.

- 3. Health Insurance - Mandatory for all students registered for twelve (12) or more credits.** All full-time students must possess some type of health insurance. SUNYIT provides a basic, economical health insurance plan for students who need coverage or wish to purchase additional coverage.

- a) Domestic Health Insurance Policy** - EACH semester all domestic students taking twelve (12) or more credits are automatically billed for a health insurance policy as designated by SUNYIT. If a student has other health insurance coverage, i.e. under a parent or employer, and the student does not wish to purchase the SUNYIT designated health insurance, a waiver must be completed prior to attendance EACH semester. Automatic billing will occur, if a waiver is not completed EACH semester. The health insurance waiver e-mail address: www.sunyit.edu - Quick Links/ Campus Intranet/Personal Information/Health Insurance Waiver.

Students taking less than twelve (12) credits are not billed for the health insurance designated by SUNYIT but may purchase it at the Business Office each semester.

- b) International Health Insurance Policy** - The State University of New York requires all international students entering the country for study or research, or any US student studying abroad in a SUNY sponsored program purchase a SUNY health insurance policy. Health insurance information is mailed upon admission and students are automatically billed.

For questions or more information, please contact the Health and Wellness Center, phone 315-792-7172 fax 315-792-7371.

SUNYIT Smoking Policy



Smoking is allowed in designated outdoor areas only. SUNYIT recognizes the hazards of smoking and fully acknowledges the rights of non-smokers as well as smokers. For complete details of the policy, please reference our website: www.sunyit.edu.

Financial Assistance

Academic Requirements for Financial Aid

To be eligible for financial aid you must be accepted into a degree program, be enrolled for at least six credit hours each semester for federal aid programs and 12 credit hours each semester for the Tuition Assistance Program (courses you have previously passed and are now repeating cannot be counted toward the required 12 hours), and be in good academic standing. (Please note: only courses required for your degree program are considered in determining your enrollment status as it relates to financial aid eligibility. Student aid cannot be awarded for classes that do not count toward your degree.) These requirements are the same for undergraduate students. Please refer to the Undergraduate Catalog for details.

Aid Programs

- **Federal College Work-Study Program**
- **Tuition Assistance Program**
- **Federal Perkins Loan**
- **William D. Ford Federal Direct Loan Program**

More detailed information about the aid programs and the application process can be found online at www.sunyit.edu/financial_aid.

Graduate Assistantships

Assistantships are awarded each academic year to selected students. These awards may include a New York State tuition scholarship and/or a cash stipend. Students awarded graduate assistantships are classified as full-time students when enrolled for nine credit hours of graduate coursework per semester. Graduate assistants generally enroll for 9 credit hours per semester and are assigned teaching, research, or administrative responsibilities for 10-20 hours per week.

Students interested in a graduate assistantship should complete the "Application for Graduate Assistantship" form in the back section of this catalog. This automatically establishes an assistantship file for the applicant. Additional material may be required to complete the assistantship application. Candidates will be contacted by the screening committee if such materials are necessary. A 3.0+ undergraduate GPA is required for consideration.

Recommendations for assistantship are made to the Provost/Vice President for Academic Affairs through a selection process involving each dean. All graduate assistantship appointments and notifications will be made by the Provost/Vice President for Academic Affairs. The assignment of an assistantship will not be made prior to a formal admission decision.

A student may receive a maximum of two years of support from state funding while pursuing the master's degree (upon discretion of the department and academic standing). A 3.0 GPA within the graduate program must be maintained while on the assistantship. Exceptions to this policy should be directed to the Provost/Vice President for Academic Affairs.

Once the assistant has been selected, the formal appointment to the position will be processed through the Office of Human Resources.

Graduate assistants are expected not to engage in outside or other on-campus employment during the term of their appointment. Exceptions based on educational need (not financial need) may be authorized by the Provost/Vice President for Academic Affairs after being recommended by the student's department/school chairperson and the dean of the appropriate academic school.

Graduate assistants may not hold two assistantships or other similar awards of any kind concurrently.

Graduate assistants are expected to provide their usual services during the period of the academic year except for holidays and recesses. However, assistants in certain administrative offices

or departments/schools may be expected to provide services over the entire period (including recesses), provided this arrangement is understood by the student at the time of the appointment.

Each assistant and his or her supervisor must certify that the assistant has satisfactorily fulfilled the assignment and duties of his or her position. The attendance sheet should be signed at the end of each month and kept by the supervisor. At the end of each semester, it is to be returned to the Office of Human Resources. In addition, a brief report outlining duties and responsibilities, and performance evaluation must be submitted by the supervisor to the Provost/Vice President for Academic Affairs at the end of each semester.

SUNY Graduate Diversity Fellowship Program

A limited number of Diversity Fellowships are awarded (pending SUNY funding) to full-time students who qualify for admission, with a minimum GPA of 3.0. To be eligible, applicants must be U.S. citizens or have permanent resident status, and demonstrate (in writing) how they will contribute to the diversity of the student body in the program for which they are applying, including by having overcome a disadvantage or other impediment to success in higher education. Students interested in being considered for the fellowship are asked to submit an essay responding to the above listed criteria. The fellowship offers financial support in the form of assistance with tuition and a stipend. Stipend dollars are considered as income and are therefore taxable.

Please contact the Graduate Admission Office for additional information.

Graduate Opportunity Program

The Graduate Opportunity Program is for former EOP, HEOP, CD, and SEEK program graduates and reflects SUNYIT's concerted efforts to expand educational opportunities to under-served constituencies. The graduate tuition scholarship will provide students with financial support to help cover the cost of tuition. The number of awards is subject to the availability of funds. Questions should be directed to the Director of Special Programs at SUNYIT.

Private Scholarships and Fellowships

Several source books list scholarships and fellowships awarded by private organizations. Please check your local library for additional information.

Also, you may access, an on-line searchable database of scholarships at <http://www.finaid.org>.

International Student Financial Aid

International students are not eligible for financial aid through the New York State Aid Programs or through the Federal Title IV Aid Programs. International students interested in financial aid funding should visit the following internet sites: www.edupass.com, www.iie.org, www.isoa.org, www.iefc.org, and www.iefc.com.

Child Care Subsidy Program

SUNYIT has a child care subsidy program for student parents. The goal of this program is to provide support to low-income student parents and allow them the opportunity to obtain a SUNYIT degree. This program provides child care subsidies for income-eligible student parents that demonstrate the ability to successfully complete the course of study and maintain satisfactory progress.

Funds are allocated on a first come, first serve basis. Apply for child care subsidy by contacting the Office of Student Accounts at (315) 792-7412.

For more information:

Financial Aid Office
SUNY Institute of Technology
P.O. Box 3050, Utica, NY 13504-3050
(315) 792-7210
e-mail: finaid@sunyit.edu
Internet: www.sunyit.edu

Tuition, Fees and Refunds

The tuition and fees for full-time and part-time students are given below. Students carrying 12 or more credits are considered full-time. **Tuition and fees are subject to change without prior notice at the discretion of the college administration and the State University of New York.**

Tuition

| <i>Undergraduate</i> | <i>Full-Time</i> | <i>Part-Time</i> |
|---------------------------|-----------------------|-----------------------|
| New York Resident* | \$2,175 per semester | \$181 per credit hour |
| Out-of-State Resident | \$5,305 per semester | \$442 per credit hour |
| Comprehensive Student Fee | \$517.50 per semester | \$43 per credit hr. |

| <i>Graduate</i> | <i>Full-Time</i> | <i>Part-Time</i> |
|-----------------------------|-----------------------|-----------------------|
| New York Resident* | \$3,450 per semester | \$288 per credit hour |
| Out-of-State Resident | \$5,460 per semester | \$455 per credit hour |
| MBA (NYS Resident) | \$3,550 per semester | \$296 per credit hour |
| MBA (Out-of-State Resident) | \$5,670 per semester | \$473 per credit hour |
| Comprehensive Student Fee | \$497.50 per semester | \$43 per credit hr. |

* "Residence" for purposes of tuition refers to a student's principal or permanent home. In order to qualify as a New York State resident for tuition purposes, in addition to other criteria, a student must be "domiciled" in New York State for a 12 month period immediately prior to the date of registration for the academic term for which application is made. A "domicile" is defined as that place where an individual maintains his/her **permanent** home and to which he/she always intends to return. Mere presence in New York State for educational purposes does not necessarily constitute domicile, regardless of time spent in NYS.

Effective July 1, 1986, resident tuition rates are applied to members of the Armed Forces of the United States on full-time active duty, stationed in New York State, their spouses and dependents. Spouses and dependents must obtain proof of their dependent status from appropriate personnel at their base education office and present it at the Business Office each semester upon registration. Please contact the Business Office if you require further information.

The Comprehensive Student Fee supports services not provided by tuition dollars or state subsidy that enrich the quality of a student's total experience at the Institute of Technology. All components of the Comprehensive Student Fee are mandatory. The typical Comprehensive Student Fee supports activities at the following levels:

| | <i>Full-time</i> (Per Semester) | <i>Part-time</i> (Per Credit Hour) |
|---------------------------|------------------------------------|---------------------------------------|
| College Fee | 12.50 | .85 |
| Intercollegiate Athletics | 165.00 | 13.75 |
| Student Activities | 95.00 | 7.95 |
| Health Services | 120.00 | 10.00 |
| Technology Applications | 125.00 | 10.45 |
| | \$517.50 | \$43 |

The College Fee is established by the Board of Trustees of the State University of New York.

The Student Activity Fee provides the funding for activities sponsored for the students, under the direction of the students' governing bodies.

The Intercollegiate Athletics Fee provides funding to operate and sustain competitive intercollegiate athletics programs at the campus. It is not a fee for use of athletic facilities by the students.

The Health Services Fee is used to support the services provided by the Health Center. Students must provide a health history and physical examination to be eligible for routine medical care.

The Technology Fee is used to upgrade, modify and make significant technological advances in classrooms and laboratories used by SUNYIT students.

First-time transfer students are assessed a mandatory one-time Orientation Program fee of \$50, freshmen are assessed a mandatory one-time Orientation Program fee of \$125, used to support activities and programs which aid the student transition to a new academic campus environment.

Tuition Refund Policy

Credit Courses

Students withdrawing from the college incur the tuition liabilities listed below based on the date of withdrawal. Liability for tuition is calculated at the time the student completes the official withdrawal process with the Registrar's office. Not attending classes does not reduce or cancel liability.

Undergraduate/Graduate - 15 Week Schedule (Full Semester)

| | | |
|-------------------|----------------------|------|
| Liability During: | 1st week of classes* | 0% |
| | 2nd week of classes* | 30% |
| | 3rd week of classes* | 50% |
| | 4th week of classes* | 70% |
| | 5th week of classes* | 100% |

Undergraduate/Graduate - Quarter or 10 Week Term

| | | |
|-------------------|----------------------|------|
| Liability During: | 1st week of classes* | 0% |
| | 2nd week of classes* | 50% |
| | 3rd week of classes* | 70% |
| | 4th week of classes* | 100% |

Undergraduate/Graduate - 8 Week Term

| | | |
|-------------------|----------------------|------|
| Liability During: | 1st week of classes* | 0% |
| | 2nd week of classes* | 60% |
| | 3rd week of classes* | 80% |
| | 4th week of classes* | 100% |

Undergraduate/Graduate - 7 Week Term

| | | |
|-------------------|----------------------|------|
| Liability During: | 1st week of classes* | 0% |
| | 2nd week of classes* | 65% |
| | 3rd week of classes* | 100% |

Undergraduate/Graduate - 5 Week Term

| | | |
|-------------------|----------------------|------|
| Liability During: | 1st week of classes* | 0% |
| | 2nd week of classes* | 75% |
| | 3rd week of classes* | 100% |

Undergraduate/Graduate - 4 Week Term

| | | |
|-------------------|------------------------|------|
| Liability During: | 2nd day of classes* | 0% |
| | Remainder of 1st week* | 50% |
| | 2nd week* | 100% |

* The first week of class session is the first day of the semester, quarter or other term. The first week of classes, for purposes of this section, shall be considered ended after seven calendar days, **including** the first day of scheduled classes, have elapsed.

All student fees are non-refundable after the end of the first week of classes. The college fee is non-refundable once classes start. The alumni fee is refundable by petition to the Alumni Office until the last day to withdraw without record.

Please check with the Student Accounts Office **immediately** about any refund/liability if you are contemplating withdrawing from any course. Consult with the Financial Aid Office also, as an aid package could be adversely affected by a decrease in credit hours.

No drop is considered official until the proper forms have been completed at the Registrar's Office and submitted to the Student Accounts Office. **During certain specified times of the year students may Add/Drop courses via the web. When the web is closed students must make changes in person or by telephone with the Registrar's Office. The Registrar's Office does not accept registration changes by email.**

How Receipt of Federal Title IV Funds Affects Student Refunds

(Pell, Direct Student Loans, Perkins Loans, Nursing Loans, and SEOG)

In accordance with the Higher Education Amendments of 1998, a portion of Title IV grant or loan funds, but not Federal Workstudy Funds **must** be returned to the Title IV Program upon a student's withdrawal from school. The law does not specify an institutional refund policy. *This may result in a student incurring a liability to SUNYIT after the Title IV funds are returned.*

Withdrawal Date

Regulation requires SUNYIT to determine a withdrawal date from the student's official notification to the institution. For unofficial withdrawals (dropping out without notification), the withdrawal date becomes the mid-point of the semester, unless SUNYIT can document a later date. If circumstances beyond the student's control (illness, accident, grievous personal loss) caused the unofficial withdrawal, **and can be documented**, SUNYIT may use discretion in determining an appropriate withdrawal date.

Earned Title IV Aid

Regulation provides a formula for the calculation of the amount of Title IV aid that the student has "earned" and SUNYIT may retain. This depends on the percentage of the enrollment period that the student has completed up to withdrawal. This percentage is calculated by dividing the number of **calendar days (not weeks)** completed by the total number of calendar days in the period. Up through the 60% point of the enrollment period, the student is eligible for the actual percentage of aid this calculation provides. For example, if a student attends for 15 days out of a 75 day semester, he/she is eligible for 20% of their total Title IV aid package ($15/75 = .20$). After the 60% point of the semester, 100% of the Title IV aid is considered "earned" by the student. The earned percentage is applied to the total amount of Title IV grant and loan assistance that was disbursed (and could have been disbursed) to the student.

Application of Unearned Percentage

Any amount in excess of the allowed percentage must be returned to the appropriate Title IV program by SUNYIT, the student, or both. SUNYIT must return the lesser of the unearned Title IV assistance or an amount equal to the total liability incurred by the student multiplied by the unearned percentage. Using the above example, if a student had received \$1,000 in Title IV loans and grants, and \$500 had been applied to the account and \$500 had been applied to the student, the earned portion of the aid package is \$200 ($.2 \times \1000) and the unearned portion is \$800 ($.8 \times \1000). \$800 must be returned to the Title IV programs. Of this \$800, \$500** must be returned by SUNYIT. This may result in the student owing SUNYIT a substantial amount of money.

** \$500 is the lesser of \$500 vs \$1590. ($\$1987.5 \text{ tuition} \times .8 \text{ unearned \% applied to institutional costs} = \1590)

Student Responsibility

Students should contact the Student Accounts Office to determine how much of their federal aid they may have to repay the school before they withdraw.

Special Rule

The student would not need to repay amounts in excess of 50% of any grant monies received. If the \$300 the student was to return came from a Pell disbursement, the student would only need to return \$150, or not more than 50% of the grant funds received.

Order of Return of Title IV Funds

Title IV Funds must be returned in the following order:

- Unsubsidized (other than parent loans)
 - Federal Direct Loans
- Subsidized Federal Direct Loans
- Federal Perkins Loans
- Federal Direct PLUS Loans
- Federal Pell Grants
- Federal SEOG
- Other Title IV assistance for which a return is required

Leaves of Absence

A leave of absence is not to be treated as a withdrawal and no return of Title IV funds is calculated. A student may take a leave of absence from school for not more than a total of 180 days in any 12-month period. SUNYIT's formal leave of absence policy must be followed in requesting the leave. The leave must be approved by SUNYIT in accordance with this policy. **However, if the student does not return at the expiration of an approved leave, then SUNYIT calculates the amount of Title IV grant and loan assistance that is to be returned according to the HEA provision based on the day the student withdrew.**

Other Refunds

Non-Credit Courses

Non-credit programs are operated on a self-sustaining basis. Fees are variable. Therefore, due to the nature of these programs, **no refunds** are allowed.

Room and Board Refunds

Room and board refunds are granted in accordance with stipulations in the current year Room and Board License issued to each resident. Room rental refunds are determined when all personal effects are removed from the room, keys surrendered, room inspected by Residential Life, all debts related to room rental incurred by the resident are paid in full to SUNYIT, and the resident has signed out of the room.

Room and board refund requests **must** be in writing. Failure to terminate occupancy in the manner stipulated in the Room and Board License may result in additional charges accumulating for the period of time between termination of residency and the date of approval by the Director of Housing.

A resident who registers and occupies a room for two weeks or less receives a percentage refund of room and board charges based upon the number of weeks housed. A week is defined as beginning on Sunday and ending the following Saturday at midnight. A part week is counted as a whole week for refund purposes. **Students occupying a room after the Saturday following the second full week of classes are liable for room and board charges for the entire semester.**

Schedule of Other Fees and Charges

Combined Room and Board Rates 2007-08 Per Semester

| Room | Meal Plan | Basic |
|--------|---------------------------------|---------|
| Single | 19/week (includes 100 pts) | \$4,315 |
| Single | 14/week (includes 100 pts) | \$4,205 |
| Single | 125/semester (includes 200 pts) | \$4,260 |
| Single | 100/semester (includes 400 pts) | \$4,285 |
| Double | 19/week (includes 100 pts) | \$3,975 |
| Double | 14/week (includes 100 pts) | \$3,865 |
| Double | 125/semester (includes 200 pts) | \$3,920 |
| Double | 100/semester (includes 400 pts) | \$3,945 |

| | Full-time | Part-time |
|---|------------|----------------|
| Parking Fee (see section entitled "Parking Fees") | \$59.95 | \$29.98 |
| Career Services Fee — voluntary (annual fee for alumni only) | \$35 | \$35 |
| Alumni Fee — per semester | \$10 | \$.85 cr. hr. |
| Diploma Cover Charge — payable when applying for diploma | \$10 | \$10 |
| Drop/Add Fee — paid per transaction | \$20 | \$20 |
| International Student Medical Insurance* | \$951/yr. | \$951/yr. |
| Domestic Student Medical Insurance | \$169/sem. | Optional |
| ID Card Replacement Fee | \$15 | \$15 |
| Late Registration Fee | \$40 | \$40 |
| Orientation Fee — paid once during first semester | | |
| <i>Freshman</i> | \$125 | \$125 |
| <i>Transfer/Graduate</i> | \$50 | \$50 |
| <i>International</i> | \$200 | |
| Late Payment Fee — charged to accts for payments received after assigned due date | \$30 | \$30 |
| Returned Item Charge — levied against maker for checks returned unpaid or charge payments declined by cardholder bank | \$25 | \$25 |
| Transcript Fee — per transcript | \$5 | \$5 |
| Diploma Replacement Fee — per replacement | \$20 | \$20 |
| Diploma Cover Replacement Fee — per replacement | \$25 | \$25 |
| HVCC Technology Fee — HVCC students only | \$110 | \$8.50 cr. hr. |
| HVCC Parking Fee — HVCC students only | \$86.40 | \$7.20 cr. hr. |

All fees subject to change

Deposits

For full-time undergraduate students (freshmen and transfers) applying for fall admission, a \$50 tuition deposit is required by May 1. For students accepted after May 1, the deposit is required within 30 days of acceptance. A refund of the tuition deposit will be granted upon written request until May 1 or for students admitted after May 1 within 30 days of the date of deposit.

Full-time undergraduate students applying for spring admission, a \$50 tuition deposit is required within 30 days of acceptance. A refund of the tuition deposit will be granted within 30 days of the date of deposit.

Part-time and EOP students are not required to submit a tuition deposit.

No deposits will be refunded after classes begin. Upon registration, this amount is subtracted from tuition due. Part-time students do not pay an admission deposit.

Full- and part-time graduate students are not required to pay admissions deposits but must return a deposit waiver card within 30 days of acceptance to hold a seat in their graduate program.

Students who wish to reserve a dormitory room are required to pay a \$100 dormitory deposit, due with their admissions deposit/waiver card. Requests for housing deposit refunds must be made in writing to Residential Life and Housing Office, and are subject to terms and conditions of the room and board license. The refund of a housing deposit follows the same deadline as the admission deposit. Only full-time students may reserve a dormitory room.

Medical Insurance

In accordance with State University policy, medical insurance is mandatory for all **full-time** students. The charge for medical insurance purchased by the University will be added to the student's account each semester unless he/she is able to provide SUNYIT with proof of insurance coverage and fill out a Medical Insurance Waiver Form prior to attendance. It is the student's responsibility to insure that the waiver form is on file, as the charge becomes final on the last day to waive. Waiver forms will then no longer be accepted and the student is responsible for the payment of the insurance fee. **Part-time students may purchase coverage if they so desire.** Waiver forms must be submitted on the Web **each semester prior to attendance.**

If you have Medical Insurance information with you when you web register:

1. Press the Medical Insurance Waiver link at the bottom of the Registration Page,
2. Complete the *Medical Insurance Waiver Form*,
3. Press *SUBMIT/Wait for message: "Your waiver has been successfully submitted."*
The cost of Student Medical Insurance will be deducted from your bill after approval by Health Center Director.

If you have already registered but have not yet done your waiver on the web:

1. Go to SUNYIT's Home Page on the web: *www.sunyit.edu*,
2. Select *Campus Intranet* in the Quick Links menu,
3. Select *Enter Secure Area*,
4. Enter your user ID and PIN,
5. Press *LOG IN*,
7. *SUNYIT Information* Main Menu will appear,
8. Select *Personal Information Menu*,
9. Select *Health Insurance Waiver*,
10. Fully complete the waiver form,
11. Press *SUBMIT/Wait for message: "Your waiver has been successfully submitted."*

The cost of Student Medical Insurance will be deducted from your bill after approval by Health Center Director.

Medical Insurance fee is not automatically refunded. When a student drops below full time, written request for refund will be accepted at the Business Office. After the last day to add for the semester, no further refunds of insurance will be allowed.

All international students (domestic students traveling abroad under an exchange program, or foreign students attending college in the U.S. on a student visa) **must purchase International Student Medical Insurance** regardless of whether they are full- or part-time. International students, who have been issued an I-20 from SUNYIT, must be covered the entire time they remain in the U.S., whether attending classes or remaining in the country during summer break. Exemption from participation in the plan may be granted only in very few and specific circumstances.

Since both the international and domestic insurance plans are obtained through prior arrangement with insurance agencies independent of the State University of New York, cost per year is variable based on experience rating for the program. Students will be charged the appropriate rate at the time they begin attendance. Those graduating in December should contact the Health Center and Business Office in advance of registration. Current rates are as follows, but are subject to change annually:

- Basic Medical Insurance.....\$338 per year*
(full-time students only)
- International Student Insurance\$951 per year*
(both full- and part-time students)

*Subject to change

Parking Fees

A parking fee must be paid by all students and employees (not exempt as a result of collective bargaining agreements) who park a vehicle on campus. That vehicle must be registered with University Police and **exhibit a valid parking decal**. Fees are established using SUNY Parking Model Costs and Charges, and are subject to New York State and local sales taxes (currently 9.00%). All regulations pertaining to the use of vehicles on campus are enforceable 24 hours a day throughout the year.

Payment of the parking fee may be made at the Bursar’s Office during normal business hours. The valid decal can then be obtained at the University Police Department. Parking fees for various categories are as follows (including applicable sales taxes):

| Time Period | Full-time | Part-time |
|----------------------------------|-----------|-----------|
| Annual (full 12 month period) | 141.70 | 81.75 |
| Academic Year (fall/spring only) | 119.90 | 59.96 |
| Single Semester Only | 59.95 | 29.98 |
| Summer Semester Only | 21.80 | 21.80 |

Parking fees are non-refundable. A full-time student is a student registered for 12 or more credit hours.

Provision for additional vehicles must be made with the University Police Department. Only one vehicle may be parked on SUNYIT property at any given time. Each vehicle must be registered and display a valid registration decal.

Students who have more than enough aid to cover their appropriate semester charges may authorize the payment of their parking fee against their incoming financial aid.

Billing Tuition Payment

A bill will be generated each semester based upon a student’s registration. Students may either register for classes by phone or via the Internet at www.sunyit.edu if they are currently enrolled, matriculated students. New students will register at an orientation program. Charges for each semester must be paid by the deadline stated on the bill to avoid cancellation of registration. **All students who plan to attend must return a signed copy of their student invoice, with payment in full or acceptable payment arrangements by the payment deadline as confirmation of their attendance. Course registrations and room and board reservations will be deleted 10 days before the start of the semester for those students who have not returned their bill and/or made acceptable payment arrangements.** Acceptable payment arrangements include enrollment in the SUNY time payment plan, financial aid or proof of third party funding, such as

VESID or private scholarships. Students can make payment by check or credit card via the web at www.sunyit.edu. Those students who have enough financial aid credits on the bill to result in a zero or credit balance can confirm their attendance online at www.sunyit.edu under confirm attendance on the campus intranet, in lieu of returning their billing statement.

Failure to return a confirmation copy with valid deferral or full payment by payment due date will result in the registration being deleted. The student will be required to re-register. A late registration fee will be charged when re-registration for the term occurs. This charge reflects the multiple processing of registration records for the same semester. Those students who register for classes after the billing due date are required to submit payment or valid deferral at the time of registration.

SUNYIT Time Payment Plans

SUNY Institute of Technology is pleased to offer Time Payment Plan as an alternative for students who find it difficult to pay all charges by the payment due date. This plan is available for the Fall and Spring semesters in either two or three payment options.

FACTs Management Co. administers the time payment plan for SUNY Institute of Technology. Enrollment must be done online through your Banner Web account. For detailed enrollment instructions, please refer to the Bursar page on the sunyit.edu website. A \$1.00 nonrefundable processing fee will be assessed for all full payment options. For use of the time payment option, a \$35.00 enrollment fee will be assessed to all FACTs Management agreements.

Financial Aid Deferrals

Students who have financial aid that is already verified by the Financial Aid Office will **have these** Financial Aid Credits appear on their statement, treated as credits. However, should a student be found to be ineligible for any listed aid, he/she is responsible for any unpaid balance. **Students registered for less than 12 credit hours are not eligible for TAP awards**, unless the award is made under the Vietnam Veteran’s Tuition Assistance program.

If a student has a valid form of aid, not listed on the statement, it may be used as a credit if appropriate proof of award is included with your remittance. The following items are acceptable as proof: TAP Awards—enclose the school portion of the award certificate; Direct Student Loans—enclose a copy of the loan award notice; Pell, SEOG, Perkins Loans, or Nursing Loans—enclose a copy of the award letter from Financial Aid; Private Scholarships—enclose a copy of the scholarship award letter. Private scholarships must be made payable directly to SUNYIT.

If you are unsure of the status of a financial aid award, contact the Financial Aid Office at 315-792-7210. They may verify the amount of allowable deferral. **It is important to note that applying for aid does not automatically guarantee eligibility.**

Other Third Party Deferrals

Armed Forces Representatives

Present properly completed federal contract authorizations forms (DD1556; DD1227) at time of payment.

Employer Sponsorship

Third party payments are acceptable only if the employer, unconditionally, agrees to pay the college upon receipt of the billing statement. No stipulations regarding student academic performance are allowable. **Submit a letter of authorization from your employer and payment of any fees due to our office prior to the billing due date.**

Employer Tuition Deferrals

If your employer pays your tuition expenses, but only after you complete the course, you have the option to defer your tuition payment until the semester ends. Deferral forms are available from our website (www.sunyit.edu). Your employer must sign the application, verifying your eligibility for reimbursement. (Letters from employers will not be accepted). This deferral will not be honored until all previous balances are paid in full. **This deferral and payment of fees must be received by our office by the billing due date.** This deferment cannot be used in conjunction with other financial aid (loans, grants, etc.) in excess of your term charges. **The deferment is applied to tuition ONLY. The comprehensive student fee is due before the start of classes.** The deferment period ends on the due date stated on the deferral form, at which time payment for tuition is due in full. Late charges will accrue on your student account if payment is not made by the due date. **Non-reimbursement to you by your employer by the date tuition is due is not an exception to this policy nor is non-receipt of a grade.** Tuition is charged for the course, not for the grade. You, not your employer, are responsible for paying the tuition on time. If for any reason you become ineligible for reimbursement by your employer, you must contact the Bursar's office at (315) 792-7412.

NYS Employees and UUP Personnel

NYS Employees and UUP Personnel must submit completed approved waivers, available on the Human Resources page of the SUNYIT web site, on or before payment due date. The student is responsible for payment of all tuition and fees at time of registration/payment unless the above are furnished. Subsequent authorization will entitle the student to a refund when vouchers are honored by the issuing campus.

State or Federally Sponsored (VESID, TRA, DVR, WIA, HIB, etc.)

It is the student's responsibility to ensure that the sponsoring agency has provided the Bursar's Office with the appropriate vouchers or authorizations required to obtain payment. Confirmation, in writing, of the amount and limitations of the award(s) must be furnished on or before payment due date. TRA sponsored students must have a valid confirmation number available at time of payment/registration.

The student is responsible for payment of any tuition and fees not confirmed by the sponsoring agency at time payment is due. Subsequent authorization will entitle the student to a refund for covered amounts when voucher is honored.

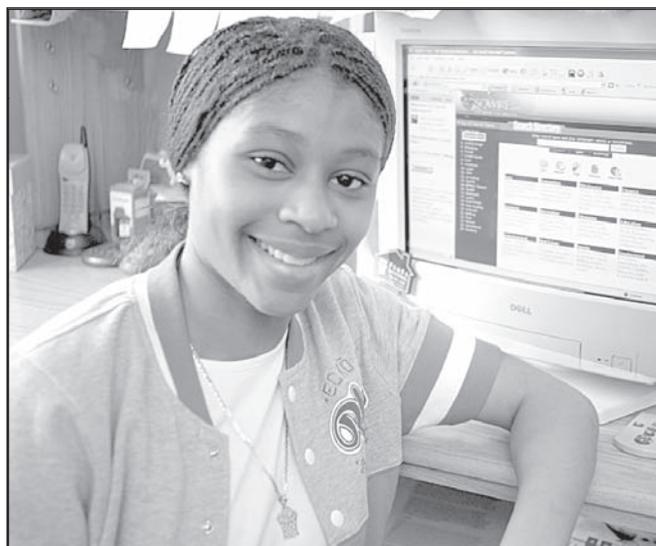
Veteran's Deferrals

If you are eligible for a veteran's deferral, the appropriate forms must be filled out each semester and on file at the college, on or before the billing due date. Note that you have a Veteran's Deferral and the amount on your semester billing statement. You will be rebilled as your tuition payments become due. Inquiries about eligibility for these deferrals should be addressed to the Registrar's Office at 315/792-7265.

FERPA

Family Educational Rights and Privacy Act of 1974

The Family Educational Rights and Privacy Act of 1974 prohibits the release of privileged information to anyone except authorized personnel. If a student wishes another individual such as parents or spouse to have access to privileged information regarding their account, they must complete the release form obtained from the Student Account's Office or online at www.sunyit.edu and return it to the Student Account's Office before any information will be



released. It is necessary to complete this release on an annual basis. It can however, be revoked at anytime when written notification is provided to the appropriate office by the student.

Required Disclosures

Please take notice, if payment is not received for obligations due to SUNYIT, this agency is required to use other collection alternatives. Pursuant to Chapter 55 of the Laws of 1992, State agencies may refer past-due accounts to a private collection agency, the New York State Attorney General's Office, or the New York State Department of Taxation and Finance. In addition, State agencies are required to charge interest on outstanding debt at the current corporate underpayment rate (9% at time of printing), compounded daily, on accounts considered more than 30 days past due. Chapter 55 allows State agencies to charge a fee on dishonored checks or like instruments.

In addition, the New York State Attorney General's Office and SUNY Central Administration have reached an agreement requiring the addition of any interest and collection fees. Students are liable for interest, late fees, a collection fee of up to 22%, and other penalties on past due debt. Collection fees will be added to new past due debts transferred, from this campus, to the Attorney General or private collection agencies, effective January 1995.

These terms and rates may be modified, without prior notice, as required by legislative action or Board of Trustees requirements.

Academic Procedures and Policies

Information on advisement, progression, retention, grading policies, course load, and procedures for processes such as add/drop, change of graduate status, advancement to candidacy, etc., can be obtained from the appropriate academic school.

Academic Standards

Each graduate degree student must maintain an overall academic grade point average of 3.0 (B grade). A student may, through the advisor, submit a petition to the school to repeat a maximum of two (2) courses in which a C grade or less was received. No more than two (2) C grades will count towards a graduate degree.

If a student does not receive a passing grade in a course which is a prerequisite for another course in the program, the student may not proceed to take other course(s) until the prerequisite has been met.

Grading System

Letter grades are used for the final rating in all courses. The grades and an interpretation of the quality of work follow:

| | | | |
|----|---------------------|--|-------------------------------|
| A | Excellent | 4.0 | Quality Point Per Credit Hour |
| A- | | 3.67 | Quality Point Per Credit Hour |
| B+ | | 3.33 | Quality Point Per Credit Hour |
| B | Good | 3.0 | Quality Point Per Credit Hour |
| B- | | 2.67 | Quality Point Per Credit Hour |
| C+ | | 2.33 | Quality Point Per Credit Hour |
| C | Passing | 2.0 | Quality Point Per Credit Hour |
| F | Failing | 0.0 | Quality Point Per Credit Hour |
| I | Incomplete | This grade is granted by the instructor when a student has failed to complete course requirements on schedule. An incomplete grade must be removed by mid-semester of the following regular semester unless the student has applied in writing and has received an extension for a specified time. Approval of requests for renewal will be at the option of the faculty member and school dean. Any incomplete grade not removed within the stated time will become an F grade at the next semester midpoint. | |
| IP | In Progress Passing | This grade is assigned at the discretion of the instructor when the student is making satisfactory progress in course requirements that one ordinarily would be unable to complete by the end of a semester, ie. practicums, internships, research, etc. An IP grade that is not removed by the end of the following semester will be recorded as an F grade. | |
| S | Satisfactory | Upon receipt of a Satisfactory grade the student will receive credit for the registered number of semester hours. | |
| U | Unsatisfactory | With an Unsatisfactory grade, the student must register again for the requisite number of semester hours in order to receive credit toward degree requirements. | |
| W | Withdraw | Students who find it necessary to withdraw from a course must notify the Registrar's Office within the approved time frame to receive a W for the course. | |

Academic Warning and Dismissal

Academic Warning: At the completion of each semester, each student's academic record is routinely reviewed, and if the cumulative grade point average is below 3.00, the student is placed on academic warning for the following semester.

Academic Dismissal: At the completion of each semester, the academic record of each student on academic warning will be reviewed for academic dismissal reasons. If the semester grade point average of a student on academic warning is below 3.00 after nine (9) credit hours, the student will be academically dismissed. No student will be academically dismissed without first being on academic warning.

Readmission Following Academic Dismissal: Students dismissed for academic deficiencies who wish to apply for readmission to SUNYIT must submit their written application to the Academic Dean of the respective school. The Dean/Academic Committee will evaluate the application and make a determination as to readmission. The Dean/Academic Committee may delay readmission until one full semester has elapsed and will generally do so if a student is applying for readmission a second time. A student granted readmission to SUNYIT will be placed on academic warning. Establishing matriculation in a degree program is governed by the regulations for matriculation in that program at the time of readmission.

Auditing

Students must register for a course to be taken for audit, and the form must be signed by the instructor of the course and the dean of the academic school within which the course is offered. Courses to be taken for audit cannot be registered for during advance registration. Students taking courses for audit must register no later than the last day to add classes. Tuition and fees are not charged for audited courses, and there will be no notation of these courses on the college transcript.

Dual Master's Degrees

1. A student possessing a master's degree from another institution may earn a second master's degree from SUNYIT by completing the specific degree requirements and the college residency requirement.
2. A student may earn two master's degrees from SUNYIT. The student must satisfy all degree requirements for each program. A student wishing to complete more than one master's degree may transfer a different set of courses for each degree but in no case is a student allowed to transfer more than 6 credit hours for each degree. A student may use up to 9 credits, taken at SUNYIT, to apply towards the 27 hour residency credit requirement of the second degree program. A student may satisfy both requirements simultaneously.

Continuous Registration: Computer Science Thesis

All graduate students must maintain continuous registration, equal to or greater than one credit while doing their final thesis, project, or capstone experience. Students registered for CSC 599 Thesis can do this by maintaining continuous enrollment in CSC 599. All other students must register for CMT 600 - Continuous Registration. This may be taken up to six semesters at which time it is expected that all program requirements will have been met.

Master of Science in Accountancy

Online

Overview

The Master of Science in Accountancy program is offered by the School of Business online. It is registered to satisfy the 150 hour licensure requirement for New York State. It was developed in response to two demands. The first was the increasing number of accountants who held undergraduate degrees in accounting and wanted to continue developing in a wide range of professional accounting careers. These careers included public accounting, corporate accounting, not-for-profit accounting and government accounting. Additionally, in view of the 150 credit hour education requirement established by the American Institute of Certified Public Accountants (AICPA) starting in the year 2000, the program was developed to qualify students to sit for professional accounting examinations that lead to credentials such as the CPA (Certified Public Accountant) and the CMA (Certified Management Accountant) designations.

The program is primarily intended for students who have the equivalent of an undergraduate degree in accounting. Students who may not have a background in accounting but desire an opportunity to broaden their capabilities and specialize in this area are afforded the option of doing so. These students would be required to include additional preparatory work in their program and would do that under the guidance of the program coordinator.

The School of Business participates in the "SUNY Learning Network," a consortium of campuses who have joined together to offer graduate and undergraduate on-line courses. Currently, it is possible to complete the M.S. Accountancy program entirely on-line (via the World Wide Web). On-line course information is available in the SUNY Learning Network Course Guide and in the SUNYIT course schedule.

The Master of Science in Accountancy degree is one of three graduate business degrees offered by the school. The others are the MBA in Technology Management and the Master of Science in Health Services Administration and are described elsewhere in this catalog.

Mission Statement

The School of Business is committed to offering high quality management and professional education that is focused on meeting the needs of students and organizations in the Mohawk Valley, New York State, and the global community. We are dedicated to providing undergraduate, graduate, and non-degree programs that are responsive to the dynamic business environment and accessible to qualified students. The School of Business is committed to continuously improving its programs through learning assurance, scholarship, and service.

Quality Assurance

The School of Business is committed to continuous quality improvement for all our programs. As part of our quality enhancement initiatives, our School is seeking accreditation by AACSB International.

Admissions Criteria

Students graduating from undergraduate accounting programs registered as CPA preparation programs will typically have no prerequisite foundation coursework. **Students without a baccalaureate degree in accounting will be required to complete coursework in accounting, business law, finance, statistics, economics, general business, and liberal arts as appropriate to prepare for the MS degree course requirements.**

Admitted students lacking these proficiencies should consult with the program coordinator to determine appropriate course selection. Prerequisite skills may be fulfilled in a variety of ways including transfer courses, courses at SUNYIT, and College-Level Entrance Program (CLEP) or Regents College Degree (RCD) examinations with appropriate knowledge, but no other documentation.

Admissions Guidelines

Scores from the GMAT (Graduate Management Admissions Test) will follow the AACSB (Association for the Advancement of Collegiate Schools of Business) recommended guideline:

A total of 1,000 points based on 200 x undergraduate GPA + GMAT score.

The Program

The degree program is a 33 semester hour program requiring completion of 10 three-credit hour core courses and 1 three-credit hour elective. The program will accommodate both full-time and part-time students. Students who intend to pursue full-time study can complete the program within an 18 month period. A program of study will be developed with the program coordinator which responds to student desires and the plan for course schedules.

Program Requirements

A total of 33 credit hours distributed as follows:

10 Core Courses (30 hours)

1 Elective Course (3 hours)

ACC 585 Financial Reporting/Analysis
 ACC 611 Advanced Income Tax Research
 ACC 630 Fund Accounting
 ACC 650 Advanced Auditing Theory
 ACC 685 Advanced Financial Accounting Theory
 FIN 525 Financial Management Problems
 FIN 685 Seminar in Accounting & Finance
 BUS 505 Multinational Economics of Technology
 MGS 511 Quantitative Business Analysis
 MIS 515 Management Information Systems
 One Elective: Any School of Business graduate electives not including the above courses and ACC 520 (Accounting for Managers).

Students must attain a grade point average of 3.0 for all graduate courses included in their program. No more than two "C" grades, regardless of overall grade point average, will be counted toward graduation.

Faculty

Sema Dube, Assistant Professor of Finance; Ph.D., George Washington University.

Laura Francis-Gladney, Assistant Professor; Ph.D., Southern Illinois University at Carbondale.

Joseph Gerard, Assistant Professor; Ph.D., University of Georgia.

Peter Karl, Professor; J.D., Albany Law School; M.B.A., CPA State of New York.

Hoseoup Lee, Assistant Professor; Ph.D., University of Connecticut.

Maureen Smith-Gaffney, Assistant Professor of Accounting, Ph.D., Ohio State University

Robert Yeh, Associate Professor, Ph.D., Purdue University.

Rafael F. Romero, Associate Professor; Ph.D., West Virginia University.



Master of Science in Advanced Technology (MSAT)

Coordinator's Message

The Master of Science in Advanced Technology (MSAT) is an interdisciplinary program with an emphasis on practical applications. It is offered jointly by the Civil, Electrical, Industrial and Mechanical Engineering Technology Departments and incorporates the demonstrated strengths in these technologies.

The eleven full-time and three part-time faculty members in this program represent a wide range of academic, research and applied specialties. The faculty work closely with outside organizations with related interests. For example, the ongoing Educational Partnership Agreement between SUNY Institute of Technology and Air Force Research Laboratory, Rome, N. Y. afford both students and faculty a variety of opportunities for collaborative research projects and personnel exchanges. These relationships also provide for mutual sharing of computing, research and library facilities. Electrical Engineering Technology faculty are involved in research sponsored by the U.S. Air Force Office of Scientific Research and other external funding agencies. Faculty in the Mechanical Engineering Technology Department have established a working relationship with the Advanced Computing Architectures/Micro-Electro Mechanical System (MEMS) group at the Air Force Research Lab (AFRL), Rome, NY. These collaborative efforts give students in this discipline, opportunities for joint projects and idea exchanges with other professionals working in these fields.

The MSAT program is designed for students interested in a high-quality multidisciplinary program that will facilitate career advancement in advanced technology areas. To that end students are helped to develop a plan of study to match their individual educational needs. Students are able to take courses in business, telecommunications, the computer sciences, and information design and technology as part of their degree.

F. Andrew Wolfe, Ph.D., P.E.
Program Coordinator

The Program

The Master of Science in Advanced Technology (MSAT) is an interdisciplinary practice-oriented program that provides a seamless path to a Master of Science degree for students who have earned an engineering, engineering technology, physics, mathematics or similar baccalaureate degree. It will be of value to individuals interested in upgrading their academic credentials and seeking career advancement in advanced technology. The American Society for Engineering Educa-

tion (ASEE) has endorsed the concept of practice-oriented masters programs.

Degree Requirements

The MSAT is a well-rounded, 33-credit program that provides the student with knowledge and practical applications. Each student, in consultation with an advisor, develops a plan of study to satisfy the degree requirements. There is a project to culminate the effort in lieu of a thesis. The six-credit project may be completed concurrently with the course work or may occur after the ninth course is taken. Additional coursework may be substituted for the project on an individual basis.

Courses (3 credits each).

Required Courses – Take at least three (9 credits)

MST-503 Special Topics in Advanced Technology

MST-520 Network Technology for Multimedia Systems

MST-510 Engineering & Society

MST-673 System Simulation

MST-680 Reliability & Quality Assurance

Electives – 24 credits

A. Designated Electives: (minimum 12 credits)

Courses selected from the designated graduate electives of MSAT or courses designated by the MSAT program coordinator as appropriate equivalents to MSAT courses.

B. General Electives: (Up to 12 credits) May be chosen from among MSAT courses or any of the graduate offerings at SUNYIT. Transferred credits count as general electives.

If students decide to take MST-690 Project they must complete 6 credits of project work to receive credit for the course.

Concentrations: Students can develop a program of study which will allow them to concentrate in the following areas: General MSAT, Electrical, Industrial, Mechanical or Transportation.

Admissions Criteria

1. A baccalaureate degree with an upper division major in engineering, engineering technology, physics, mathematics or a related area from an accredited college or university. Students who have earned a baccalaureate degree in a discipline other than mentioned above, but who possess significant work

experience (3-5 years) in an engineering/manufacturing area will be considered for admission on an individual basis.

2. An average of B or better for the last 30 credit hours of undergraduate or graduate coursework (a GPA of 3.0 on a 4.0 point scale). Applicants with GPA below 3.0 for the last 30 credit hours may be considered if they can demonstrate graduate potential via other means.
3. Official scores on the Graduate Record Examination (GRE) within the past five years. The score required for acceptance into the program would vary depending upon the student's academic background, professional experience and letter of recommendation. Applicants without GRE scores are evaluated on an individual basis and may be admissible pending receipt of scores at a later date.
4. Applicants should have submitted evidence of personal and professional qualifications via one to three professional references.
5. Applicants should have submitted a narrative statement of professional objectives for graduate study.
6. Applicants with deficiencies may be required to take appropriate additional coursework above the 33 credit hour program total as recommended by an MSAT graduate faculty advisor. These courses will be identified at the time of admission and will be built into the student's official program of study.

Laboratory Facilities

SUNYIT supports a practice-oriented learning environments in all primary areas of academic offerings. The Master of Science in Advanced Technology is supported by several state-of-the-art laboratories containing a wide variety of equipment including a laboratory which is interconnected with an optical network. The laboratories are also supported with the latest software including AUTOCAD, ALGOR, SMARTCAM, MINITAB, MATLAB/SIMULINK, ProE, LabVIEW, OPNET, SYNCHRO, CORSIM, and HCS. In addition, SUNYIT maintains extensive library holdings in support of the Master of Science in Advanced Technology program.

Faculty

Daniel S. Benincasa, Associate Professor, Ph.D., RPI. Audio and speech processing, digital and analog communication systems, information assurance and intelligent signal processing.

Timothy E. Busch, Assistant Professor, Ph.D. Binghamton University. Adversarial modeling, operationally focused simulation, multi-resolution modeling, control system reconfigurability.

William Confer, Assistant Professor, Ph.D. Auburn University. Embedded/wireless systems, architecture simulation, software engineering, and artificial intelligence.

Digendra Kumar Das, Professor, Ph.D. University of Manchester Institute of Science and Technology. CAD/CAM/CIM, fluid/prognostics, turbomachinery and thermal sciences and MEMS.

Heather M. B. Dussault, Research Assistant Professor, Ph.D. RPI. Semiconductor and electronic system reliability, digital design and forensics, programmable microsystems, biological analogies for processing information.

Atlas Hsie, Associate Professor, CmfGE, CQE, CRE, M.S. University of Michigan. M.S., University of Akron. Quality & Reliability Engineering, engineering economics, production management, CAM & robotics.

Naseem Ishaq, Associate Professor, Ph.D. London University. Vision, VLSI and networking

Daniel K. Jones, Associate Professor, Ph.D., P.E. University of Pittsburgh. Rehabilitation engineering and assistive technology, experimental fluid mechanics, industrial instrumentation, and signal processing.

John Marsh, Associate Professor, Ph.D. Carnegie Mellon University. Routing in complex networks, wireless communications systems, statistical mechanics, signal analysis, passive and active integrated optics, and fiber optic networks.

Michael J. Medley, Assistant Professor, Ph.D. RPI. Adaptive signal processing, digital communications, wireless information assurance, and integrated systems.

Salahuddin Qazi, Professor, Ph.D. Loughborough University of Technology. Fiberoptics, optical and wireless communications.

Mohamed Rezk, Associate Professor, D.Eng. Concordia University. Circuit theory, computer-aided circuit design and digital filters.

Anglo-Kamel Tadros, Associate Professor Emeritus, Ph.D. University of Bradford. Mechanics of sheet metal forming, computer-aided engineering, finite element analysis.

F. Andrew Wolfe, Associate Professor, Ph.D., P.E. RPI. Traffic flow, transportation planning, engineering interaction with society, Erie Canal archeology.

Master of Science in Applied Sociology

Degree Description

The M.S. in Applied Sociology promotes the use of sociological and anthropological theory and research methods to formulate, implement, and evaluate organizationally-based interventions. This degree program builds on our existing strengths in human services and criminology/criminal justice, and provides students with knowledge and skills that can be used in multiple settings, including (but not limited to):

- Problem formulation
- Program/Intervention design
- Organizational development
- Program advocacy
- Program evaluation

Career Paths in Applied Sociology

Funding requirements for human service and criminal justice organizations have changed dramatically in the last decade. New buzz-words such as “accountability,” “measurable outcomes,” “best practices,” “theory and research based program development,” and “program evaluation” have become critical prerequisites for public and private funding. Many human service and criminal justice organizations do not have the staff who possess the necessary knowledge and skills to respond to these new funding imperatives. Graduates of the M.S. in Applied Sociology are well equipped to confront the challenges posed by the accountability revolution.

A graduate with an M.S. in Applied Sociology will be qualified for the following careers:

- Program Director
- Program Developer
- Program Evaluator
- Grant Writer
- Researcher/Data Analyst
- Team Leader
- Project Coordinator

Curriculum

The program’s curriculum requirements include a set of six (6) required courses and five (5) electives designed to appeal to students with professional experience or interest in the human service, criminal justice, or education fields.

Sample Course Rotation

Semester I

SOC 510 Social Paradigms and Interventions - R*
SOC 500 Designing Interventions

Semester II

SOC 532 Methods of Research: Survey And Experimental Design - R
SOC 521 Crime and Social Policy
OR
SOC 595 Practicum in Sociology – R

Summer Session I

SOC 534 Methods of Research: Qualitative Research Techniques

Semester III

SOC 533 Methods of Research: Statistical Analysis - R
SOC 574 Drug Epidemics

Semester IV

SOC 596 Proposal and Grant Writing Seminar
SOC 590 Selected Topics in Sociology

Summer Session II

SOC 590 Selected Topics in Sociology

Semester V

SOC 597 Seminar in Applied Sociology - R
OR
SOC 599 Thesis - R
OR
SOC 597 Seminar in Applied Sociology - R

Semester VI

SOC 597 Seminar in Applied Sociology (Continued)

**R = Required Course, all other courses are electives*

Degree Requirements

Each graduate degree student must complete 33 credits (36 credits if the student opts to take SOC 597: Seminar in Applied Sociology in lieu of a thesis or project) and maintain an overall grade point average of 3.0 (B grade). Regardless of the overall G.P.A., no more than two C grades will count toward degree requirements. All courses resulting in a grade lower than a C must be repeated.

Admissions

Applications are accepted on a rolling basis and students may begin their studies in either the Fall or Spring semesters. This program is intended for students interested in studying part-time. Admissions requirements are as follows:

- **A baccalaureate degree from an accredited university or college.**
- **A 3.0 overall GPA.**
- **For those without a Bachelors degree in sociology, at least 15 credits in sociology or closely related field.**
- **A course in Statistics with a B- or better. A student who does not meet this requirement may be admitted with a deficiency that must be removed before taking SOC 532 or SOC 533.**
- **Six hours of graduate credit in sociology or a closely related field can be transferred if the course content parallels core requirements of the M.S. in Applied Sociology.**

Application Checklist

- Completed application for Graduate Admissions (available through the SUNYIT Admission Office (315) 792-7500) and payment of the application fee.
- Graduates of colleges other than SUNYIT must request that transcripts of all undergraduate and post-baccalaureate work be sent to the Admissions Office. Transcripts of SUNYIT graduates will be secured by the Admissions Office directly from the Registrar.
- Three letters of recommendation must be submitted to the Admissions Office. Applicants are encouraged to seek letters from a current/former workplace or practicum supervisor as well as at least one faculty member.
- GRE scores are desirable but not required.
- Applicants must submit an essay responding to the question: How will a Master's of Science in Applied Sociology further your career goals?

- Applicants may submit additional materials that support the student's preparation for graduate level work. Such materials might include copies of grants submitted, programs designed or evaluated, or a list and brief description of programs/projects the student has worked on; it must be clear what role the applicant played in the development of these materials.

Full Time Faculty

Dr. Veronica Tichenor, Sociology Program Coordinator

Interests: Gender and power dynamics in families
Youth involvement in violence
Motherhood and identity

Dr. Alphonse Sallett

Interests: Drug use among adolescents, especially pre-teens

Dr. Ken Mazlen

Interests: Links between unemployment and crime

Dr. Kris Paap

Interests: White working-class masculinity and construction
Women in prison
Agricultural safety

Dr. Kathryn Stam (Anthropologist)

Interests: Information technology in the work place
Employees' rights and behavior
Cross-cultural perspectives on health

Dr. Linda Weber

Interests: Social practice, medical sociology, and social psychology. Current research examines health promotion, the creation of trust and at-youth risk.

Master of Business Administration (MBA) in Technology Management

On Campus and Online

Overview

The Master of Business Administration (MBA) degree is the most widely awarded and recognized graduate degree in the field of business. The MBA in Technology Management is a degree that offers both a broad and integrative perspective across business functions, and a chance to specialize in a field of the individual's choice. It also responds to the current needs of the local business community by combining a rigorous study of management topics with a unique focus on technology and innovation management. The MBA is the ultimate degree for applied business.

The MBA is traditionally a two-year (full-time) curriculum designed to prepare generalists for corporate management. Every student in the MBA program will be individually advised by the MBA Program Coordinator. The high technology infrastructure at the Institute of Technology campus provides an ideal environment to integrate technology into the management curriculum.

The MBA is one of the three graduate business degrees offered by the school. The others are the Master of Science in Accountancy and the Master of Science in Health Services Administration that are described elsewhere in the catalog.

Mission Statement

The School of Business is committed to offering high quality management and professional education that is focused on meeting the needs of students and organizations in the Mohawk Valley, New York State, and the global community. We are dedicated to providing undergraduate, graduate, and non-degree programs that are responsive to the dynamic business environment and accessible to qualified students. The School of Business is committed to continuously improving its programs through learning assurance, scholarship, and service.

Quality Assurance

The School of Business is committed to continuous quality improvement for all our programs. As part of our quality enhancement initiatives, our School is seeking accreditation by AACSB International.

The Program

The program stresses the use of modern techniques to analyze and develop business solutions and prepare students for upper-level management jobs. The focus of the coursework is on the use of quantitative and qualitative analyses in conjunction with financial, accounting, and economic principles to solve current and future business challenges. Students have an opportunity to concentrate in one of five areas of specialization: Accounting and Finance, Marketing Management, Human Resource Management, Health Services Management, or an individually designed concentration.

Our program will provide opportunities for individuals who cannot travel to campus to pursue such a degree.

Program Options

Weekday Option

The course schedule for the MBA is designed primarily to accommodate working professionals. Full-time study may be pursued by students and be completed in three semesters. Most of the courses are scheduled in the evening. Students may enter in the fall or spring semester.

Online Option

To accommodate the working professional who is unable to travel to campus to take coursework, all courses in the MBA program are also offered online via the world-wide-web in an asynchronous mode. The School of Business uses the SUNY Learning Network for its course management and technical support. Students are able to work on their classes with a great deal of flexibility and within the confines of their personal circumstances.

Admissions Criteria

Students from four-year programs that have earned a bachelor's degree will typically have no prerequisite foundation coursework. Other students will be required to complete an appropriate four-year degree to be prepared for graduate studies. Admitted students will consult with the MBA Program Coordinator to determine appropriate course selection.

Admissions Guidelines

Scores from the GMAT (Graduate Management Admissions Test) will follow the AACSB (Association to Advance Collegiate Schools of Business) recommended guideline:

A total of 1000 points based on 200 x undergraduate GPA + GMAT score. Minimum GMAT score of 400.

MBA Program Guidelines

1) Online courses are reserved for students living more than 50 miles from campus. Students who select the on-campus mode will be required to take all classes on campus except for a maximum of two classes that may be taken online. Students who select the online mode will be required to take all classes online except for a maximum of two classes that may be taken on campus.

2) All students must undergo an on-campus residency requirement prior to graduation from the program. For online students, the residency requirement will be part of the TIM 685 capstone experience, and will require students to come to campus for one weekend for testing, seminars, oral interview, and group presentations. The weekend dates and times will be set toward the end of the semester by the faculty teaching TIM 685. The purpose of the campus residency is to ensure program quality and integrity, and to help fulfill assessment functions related to oral, interpersonal, and presentation skills.

Degree Requirements

Program Requirements

There is a total of 48 credit hours in the MBA program. They are distributed as follows:

| | |
|-------------------------------------|-----------------|
| Technology Management Core Courses: | 18 credit hours |
| Business Management Core Courses: | 21 credit hours |
| Specialized Concentration Courses: | 9 credit hours |

Common Core Courses

| Course Name | Course Number | Credits |
|--|---------------|-----------|
| <i>Technology Management Core Courses</i> | | |
| Project Management | TIM 500 | 3 |
| Managing New Product Design & Development | TIM 530 | 3 |
| Business Law, Ethics, & Intellectual Property Rights | BLW 570 | 3 |
| E-Commerce and Entrepreneurship | MIS 615 | 3 |
| Cases in Technology and Innovation Management | TIM 585 | 3 |
| Strategic Planning | TIM 685 | 3 |
| Total Technology Management Core Courses | | 18 |
| <i>Business Management Core Courses</i> | | |
| Accounting for Managers | ACC 520 | 3 |
| Human Resource Management | HRM 518 | 3 |
| Management Information Systems | MIS 515 | 3 |
| Marketing Management | MKT 505 | 3 |
| Multinational Economics of Technology | BUS 505 | 3 |
| Financial Management Problems | FIN 525 | 3 |
| Quantitative Business Analysis | MGS 511 | 3 |
| Total Business Management Core Courses | | 21 |

Students must maintain a grade point average of 3.0 for all graduate courses included in their program. No more than two "C" grades, regardless of overall grade point average, will be counted toward graduation.

Students may transfer up to four classes (12 credit hours), if applicable, from another graduate or MBA program at another university. However, Fast Track MBA students may only transfer up to two classes (6 credit hours), if applicable.

FAST TRACK MBA in Technology Management

The Fast Track MBA is designed for students who have an undergraduate business degree with a Cumulative Grade Point Average (GPA) of 3.0 or higher from an accredited business program. Students admitted into the Fast Track MBA will be granted course waivers (15 hours) for the following Business Core foundation courses: ACC 520, BUS 505, FIN 525, HRM 518 and MKT 505. The Fast Track option allows full-time MBA students with an undergraduate business degree to complete the MBA in Technology Management degree program in a calendar year.

Faculty

Stephen Havlovic, Dean and Professor of Human Resource Management, Ph.D., Ohio State University.

Peter A. Karl III, Professor of Law and Tax, JD Albany Law School, CPA.

John Barnes, Associate Professor of Marketing, Ph.D., Arizona State University.

Lisa Berardino, Associate Professor of Human Resource Management, Ph.D., Virginia Polytechnic Institute.

Gary D. Scherzer, Associate Professor; Health Services Management, M.P.H., University of Tennessee.

Robert Yeh, Associate Professor of Marketing, Ph.D., Purdue University.

Sema Dube, Assistant Professor of Finance; Ph.D., George Washington University.

Laura Francis-Gladney, Assistant Professor of Accounting, Ph.D., Southern Illinois University at Carbondale.

Joseph Gerard, Assistant Professor of Technology Management, Ph.D., University of Georgia.

Kimberly Jarrell, Assistant Professor of Management and Technology Management, Ph.D., Syracuse University.

Efstathios Kefallonitis, Assistant Professor of Marketing, Ph.D., Cranfield University.

Hoseoup Lee, Assistant Professor of Accounting, Ph.D., University of Connecticut, CPA.

David McLain, Assistant Professor Technology Management, Ph.D., University of Wisconsin – Madison.

Janice Welker, Assistant Professor; Ph.D., Health Services Management, Saint Louis University.

Master of Science in Computer and Information Science

Chairman's Message

The Master of Science program in Computer and Information Science provides students with a strong theoretical and application-oriented education. Graduates from the program have been equally successfully in entering the work force and in continuing their graduate education. Students from this program have gone on to pursue their doctoral degrees from institutions such as Binghamton University, State University of New York, Cornell University, University of Massachusetts, Northwestern University, Syracuse University, the University of Southern California, and the Steven's Institute of Technology.

The Computer Science Department is the largest within the School of Information Systems and Engineering Technology. The twelve full-time faculty members have diverse areas of academic expertise. They support the graduate program and two undergraduate programs, while continuing to pursue research and scholarly activities in their respective areas of interest. Many faculty and students maintain a close working relationship with researchers at the Air Force Research Laboratory in nearby Rome, New York.

The program regularly offers a wide variety of courses including systems theory, formal languages, artificial intelligence, computer vision, and courses emphasizing information storage and retrieval. The courses are complemented by several state-of-the-art laboratories employing a variety of computing environments.

The program is also supported by extensive library holdings. Over 200 journal titles maintained by the library directly support the graduate program in Computer and Information Science.

The Master of Science in Computer and Information Science program is designed for full and part-time students seeking a quality education in preparation for employment and career advancement in this rapidly developing field.

Roger Cavallo, Ph.D.,
Professor and Chair
Computer and Information Science Department

This program is designed to provide students with a broad overview of the major areas in the discipline and in-depth specialization in at least one area. Course offerings stress the principles and problem solving methodology required by computing professionals working in industry, business and education.

Admissions Criteria

Some computer science background is required for admission to the program. However, students with an insufficient background may amend this deficiency by taking designated "bridge" courses. These courses are intended to provide students with fundamental knowledge in mathematics and computer science as appropriate and serve to prepare students for advanced coursework. Although some students may be advised to take up to five bridge courses, only two of these may be counted toward the elective component of the

degree requirements. The use of bridge courses allows students with technical backgrounds other than computer science to complete their graduate program within a reasonable period of time.

Bridge Courses

| | |
|---------|--|
| CSC 500 | Discrete Structures |
| CSC 501 | Continuous Methods in Computer Science |
| CSC 502 | Machine Structures |
| CSC 503 | Data Structures |
| CSC 504 | Computational Methods in Linear Algebra (Also listed as CS 421) |

Students who need to make up deficiencies or enroll in bridge courses should consult with a graduate advisor to determine appropriate course selection. GRE general test scores are also part of the admission criteria. Information on this test appears in the general information section of this catalog.

Degree Requirements

The basic requirements are completion of 33 semester hours of graduate study including successful completion of either a project (CCSC 598 – 3 credits) or a thesis (CSC 599 – 6 credits).

1. Coursework in which a B (3.0) average must be maintained shall include:

CORE COURSES (3 courses)

| | |
|----------|--|
| CSC 511: | Formal Methods in Programming |
| CSC 521: | Analytical Models for Operating Systems |
| CSC 531: | Automata, Computability & Formal Languages |
| CSC 541 | Information Storage and Access |
| CSC 551 | Introduction to Systems Theory |

ELECTIVES (6-7 courses)

A. Designated Electives (minimum of 4):

Courses selected from the designated graduate electives of the department (see list at right).

B. General Electives:

Up to two courses, which may be chosen from among computer science courses or any of the graduate offerings of SUNYIT. Bridge courses and transferred courses count as General Electives.

2. "No formal defense is required for the project – students present their results informally at a colloquium or as invited speakers in a class related to their topics."

Faculty

Bruno Andriamanalimanana, Associate Professor; Ph.D., Lehigh Combinatorics, Coding Theory, Cryptography.

Roger Cavallo, Professor; Ph.D., SUNY Binghamton Systems Theory, conceptual modeling, probabilistic database theory.

William Confer, Assistant Professor; Ph.D., Auburn University, Real-Time Systems, Embedded Systems, Computer Architecture.

Raymond Jesaitis, Professor; Ph.D., Cornell Distributed Systems, numerical methods.

Rosemary Mullick, Professor; Ph.D., Wayne State Operating Systems, computer networks, artificial intelligence, instructional computing.

Jorge Novillo, Professor; Ph.D., Lehigh Combinatorics, data security, bio-computing, artificial intelligence.

Michael Pittarelli, Professor; Ph.D., SUNY Binghamton Systems science, artificial intelligence, combinatorial search, database theory.

Ron Sarnier, Professor; Ph.D., SUNY Binghamton Data modeling, statistical inference in the social sciences, instructional computing.

Sam Sengupta, Professor; Ph.D., Waterloo Systems modeling, computer networks, system forensics, distributed systems, operating systems.

Charles Shi, Assistant Professor; Ph.D., Clemson, Distributed Systems, Selfstabilizing/Adaptive Protocols, Mobile Ad Hoc Networks (MANET), Software Development, Applied Graph Theory.

Scott Spetka, Professor; Ph.D., UCLA Distributed databases, operating systems, system administration.

Heather Dussault, Research Assistant Professor; Ph.D., Rensselaer Polytechnic Institute Computer Architecture, Computer Forensics, Graphics, Gaming.

Kevin Kwiat, Adjunct Professor; Ph.D., Syracuse Computer architecture, distributed systems, information assurance, architecture.

SUNYIT Academic Computing Facilities

The use of computers is widely integrated into almost all facets of life at SUNYIT. Computing is used for instruction, research, communication, as well as the registration and business functions of SUNYIT. Every student receives a SUNYIT computer account that provides them with access to the campus-wide computing resources and computer labs. Students should expect that most of their classes will involve some use of computing, and that e-mail is the preferred method for communications with instructors as well as with campus administrative offices.

Students use their SUNYIT computer account to web register, view course grades and print unofficial transcripts; to log in to the computer labs, the Unix systems, and the web accessible Windows applications; and to access numerous web resources such as e-mail, the SUNYIT file system, and library databases. All registered students are given a home directory on the SUNYIT file system for their files, web pages and e-mail. Additional disk storage space is available to those engaged in special projects with the approval of the Director of Information Technology Services.

Academic programs at SUNYIT are supported by over 300 computing stations (personal computers and workstations) in open locations or general purpose laboratories, and many more in

laboratories dedicated to particular functions. Computing labs are located in both academic buildings (Donovan Hall and Kunsela Hall), and in the Mohawk Residence Hall complex; all dormitory rooms are wired to provide private, high-speed Ethernet data connections for each occupant. The Mohawk Residence lab is available to all registered students 24 hours a day, 7 days a week. Off-campus access is maintained through the Internet.

The campus network has a gigabit Ethernet backbone between all buildings. The backbone runs at a speed of 1000 mb/sec; segments run at either 100 mb/sec or 1000 mb/sec.

Payment of the mandatory Technology Fee entitles students to access computing facilities, although nominal additional charges apply for the production of high-quality color output on special media and for short-term checkout of laptop computers.

SUNYIT's computer related policies are published in the Computer Use Policy, Dorm Connection Policy, Computer Software Policy, Website Policy and Copyright Policy that are available from the Information Technology Services web pages.

Internet Access

SUNYIT holds the domain name sunyit.edu. SUNYIT's Internet connection was recently upgraded to a fractional T-3 running at 15 mb/sec, thus, maintaining SUNYIT's status as having one of the highest bandwidth connections in Upstate New York. Internet services are extensively used throughout the curriculum, and student use is strongly encouraged.

Numerous courses are taught exclusively over the Internet through the SUNY Learning Network. Others provide on-line computing activities in lieu of some course meetings through SUNY CourseSpace. In addition, students have access to over 800 computer-based training courses on the SkillSoft web site.

SUNYIT maintains an extensive Web site (www.sunyit.edu) and is continually expanding its Web resources. Current web resources include: the library services such as the catalog, databases and interlibrary loan requests; the Campus Intranet for real-time registration activities such as course add/drop, schedule inquiry, grade inquiry, unofficial transcript production, and billing inquiry; the Citrix server for remote access to Windows applications; and MySUNYIT (my.sunyit.edu) for single sign-on access to a collection of web resources such as e-mail, file system, trouble ticket system, calendar and the Campus Intranet.

Campus-Wide Systems

SUNYIT maintains a number of centrally administered systems that host the web services, ftp services, printer queues, directory services, user authentication and provide access to the Oracle database management system.

Computing Labs

SUNYIT has over forty computer laboratories on the campus; some are dedicated to a particular curriculum or purpose, others are general purpose. PC labs consist primarily of Pentium III and IV class computers running under Microsoft Windows XP and connect to lab file servers. Some departmental labs also run under the UNIX, Linux and Macintosh operating systems.

Microsoft Office, consisting of Word, Excel, PowerPoint and Access, is the standard integrated office suite and is available in computer labs, classroom instruction stations, student rental laptops and on the Citrix server for remote access. The current versions available are 2000 and 2002 (XP). SUNYIT also holds site licenses for a variety of applications including Borland programming languages, and SPSS (Statistical Package for the Social Sciences), Mathematica, Maple and Minitab.

The standard lab computer is currently a Pentium III/750 MHz with 17" flat screen monitor and RW CD drive. Subject to available

funding, many labs are on a replacement cycle averaging three academic years or less. Substantial upgrades to computing labs are anticipated during the lifetime of this catalog.

The labs listed below are available to all students for general use, are not scheduled for classes, access over 100 applications on lab servers and access numerous web resources. Current software is listed on the Information Technology Services, Computer Labs web page.

Mary Planow Lab (Kunsela Hall C-003) – has thirty computers, monochrome laser printer, a color laser printer, and a scanning station.

Donovan Student Lab (Donovan G-161) – has thirty computers, monochrome laser printer and color laser printer.

Learning Center (Donovan G-155) – has sixteen computers and monochrome laser printer. The Learning Center provides assistance in using the computer and various software packages.

Mohawk Lab (Mohawk Residence Hall Lounge) – has twelve computers and monochrome laser printer. The lab is accessible 24 hours a day, 7 days a week.

Departmental Academic Computing Facilities

In addition to the above listed labs, each school maintains departmental computer labs for its majors.

School of Arts & Sciences

Macintosh Lab (Donovan G-238) – twenty Macintosh G4 computers, an associated file server, and peripherals. This lab is used primarily in support of courses in Psychology and Information Design and Technology.

Technical Writing Lab (Donovan 1146) – twenty-five computers and laser printer is used extensively in support of courses in report and technical writing.

Physics Lab (Donovan 2107) – features ten computers and laser printer. This lab is primarily used for physics lab courses and use software for video analysis and scientific graphing.

Interdisciplinary Lab (Donovan 2147) – approximately twenty-four computers, three monochrome laser printers, color laser printer and scanner. This lab also has several small-group work areas with computers in each area. Used to support courses in Professional and Technical Communications, Information Design and Technology and Sociology. Currently installed software includes Microsoft Office2002, Pagemaker, Photoshop, PaintShop Pro, SPSS, Quark and RoboHelp.

School of Information Systems & Engineering Technology

Local Area Network Lab (Donovan G-143) – twenty-four computers (currently Pentium III/400) with 17" monitors and a color laser printer. This lab supports classes Local Area Network configuration and administration. Installed software includes Windows/NT Workstation, Windows/NT Server, Winmind, Opnet, and Comnet. A Robotel system permits the instructor to control the displays of all computers in this lab.

Computer-Based Training (CBT) Lab (Donovan G-145) – sixteen computers (currently Pentium 233) with 17" monitors and a laser printer. This lab provides access to over 600 computer based training modules.

CIM Lab (Donovan G-225 and G-225A) – approximately twenty-five computers (currently Pentium III/450) with 17" monitors and an assortment of monochrome and color printers and plotters. Currently installed software includes Algor Supersap, AutoCad, Hydrain, Microstation, and Microsoft Office2002. This lab sup-

ports courses in Civil Engineering Technology and Mechanical Engineering Technology.

Advanced CAM Lab (Donovan 1159) – ten computers, laser printer and plotter used in support of courses in Civil Engineering Technology and Industrial Engineering Technology. Currently installed software includes Algor Supersap, AutoCad, Hydrain, Microstation, SmartCam, TKSolver, and Microsoft Office2002.

Computer Science Laboratories

The Computer Science department maintains four labs which contain a mix of operating systems and software. These labs are interconnected on a modern high speed network and supported by multiple file servers for central data storage which is available both on and off campus. In addition to providing disk storage to computer science and information systems majors, additional servers support the Computer Science department web site (www.cs.sunyit.edu), remote access, databases (mySQL, PostgreSQL, and Oracle), 8 lines for dialup connections, and many other services. The Computer Science network is maintained by full time staff with the assistance of student administrators.

DogNET UNIX Labs (Kunsela C012 and C107) - provide access to UNIX workstations (named after dogs). Twenty-Five workstations (currently Pentium IV/3.4GHz with 17" flat-panel monitors) are in the C012 classroom lab. These machines run on the Gentoo Linux operating system and provide access to many programs for Internet access, multimedia applications, publishing, language compilers, etc. The C012 lab is open for use when classes are not in session. The C107 UNIX lab contains 20 workstations running the FreeBSD operating system. This lab is used for computer science courses in operating systems, networking, web development, and system administration.

MS Windows Labs (Kunsela C014 and C109) - provide access to the Windows operating system and software. The C014 classroom lab contains twenty-five workstations (currently Core Duo/3.4GHz with 17" flat-panel monitors and DVD±RW drives) and is open for use when classes are not in session. The C109 special purpose lab contains 6 workstations and is ideal for small groups working collaboratively on projects. All systems in both labs run the latest version of the Microsoft Windows operating system. They support instruction and experimentation in object-oriented programming, client-server and distributed computing (networking, system administration and interoperability with other platforms), collaborative computing (web development, videoconferencing, multimedia). Programming environments supported include SUN Java, Visual Studio NET (C#, J#, C++, Visual Basic), Fortran90, Proglog, LISP, ML-ObjectCaml, APL. Application software includes Microsoft Office, Frontpage, Publisher, Visio, Matlab and Maple.

School of Business

School of Business Lab (Donovan 1157) – twenty-eight computers, monochrome laser printer, color laser printer and color scanner. This lab is often used for hands-on instruction in courses in the School of Business.

School of Nursing & Health Systems

Nursing Informatics Lab (Donovan 1149) – thirteen computers and laser printer. This lab is used to support Nursing and Health Information Systems courses. Currently installed software includes Diagnostic Reasoning (DxR), Home Health Nursing, SPSS, Microsoft Office 2002 and numerous nursing and health applications.

Health Information Management Lab (Donovan 1239) – six computers and laser printer. This lab is used to support Health Information Systems courses. Currently installed software includes database applications, Microsoft Office 2002.

Master of Science in Health Services Administration

On Campus and Online

Overview

The Master of Science in Health Services Administration degree promotes the use of management and organizational theory, an understanding of health care delivery, reimbursement and financing systems, and applied research to formulate, implement, and evaluate managerial decisions in a health care setting. Areas of study in the curriculum include management, health policy, legal topics in health care, financial management, health marketing and strategic planning, quantitative methods, and research methods.

The Master of Science in Health Services Administration is an internationally recognized degree, and is widely regarded as an outstanding graduate degree in the field of health care management. The program of study integrates both major topical areas in health care management (such as law, financial management, marketing), which are essential given the increasing business orientation of health care, and applied health care research. Upon completion of the program, a graduate will have the necessary academic training to assume a mid- to upper-level management position in a health care setting (e.g., practice management, managed care, acute care, long-term care, insurance). Graduates may also be qualified to take the national nursing home administrator examination for licensure as a nursing home administrator upon completion of an administrator in training program of study.

The Master of Science in Health Services Administration Program is primarily intended for students who have academic preparation in the liberal arts, the applied sciences (e.g., students with a Bachelor's degree in nursing), or business, and seek a career in health care administration. These students will benefit from the health services administration focus of the curriculum, which has been designed to meet the educational needs and career goals of persons with a desire to apply management techniques to organizations in a health care setting.

The School of Business participates in the SUNY Learning Network; this is a consortium of campuses who have joined together to offer graduate and undergraduate on-line courses. Currently, it is possible to complete the Master of Science in Health Services Administration program entirely on-line (via the World Wide Web). On-line course information is available in the SUNY Learning Network Course Guide and in the College's course schedule.

Admissions Guidelines

Students admitted to the Master of Science in Health Services Administration Program are expected to be proficient in two general areas common to graduate programs in health management upon admission, accounting and statistics. Students will also be required to demonstrate computer competence with spreadsheets, word processing and databases by the end of the first semester. Competence may be determined by coursework or work experience. Admitted students lacking these proficiencies should consult with a graduate advisor to determine appropriate course selection to address these

deficiencies. Prerequisite skills may be fulfilled in a variety of ways including: transfer courses, courses at SUNYIT, and College-level Entrance Program (CLEP) or Regents College Degree (RCD) examinations for students with appropriate knowledge, but no official documentation.

An application for admission to the Master of Science in Health Services Administration Program must be filed, along with all supporting documents, with SUNYIT's Admissions Office.

Admission Criteria

- A baccalaureate degree from an accredited university or college.
- A 3.0 or higher overall G.P.A.
- A course in statistics with a C or better; a course in accounting with a C or better. A student who does not meet this requirement may be admitted with a deficiency.

- **GMAT or GRE**

Scores from the GMAT (Graduate Management Admissions Test) will follow the AACSB (American Assembly of Collegiate Schools of Business) recommended guideline:

A total of 1,000 points based on 200 x undergraduate GPA + GMAT score.

SUNYIT will use prior academic achievement and the GMAT or GRE as the basic guide to determine admissibility, except in the following cases:

- Minimum of 400 on GMAT is required for admission.
1. The applicant has demonstrated, through exceptional performance in a management career, that his or her undergraduate grades were not indicative of academic performance.
 2. Conditional admission may be allowed for promising candidates who do not perform well on the GMAT or GRE. Students must maintain at least a B average in the first three courses completed in order to remain matriculated.

The Program

The program may require up to 45 graduate hours of study depending on the individual student's prior coursework and professional experience. In an effort to recognize and accommodate the expected diversity of baccalaureate backgrounds of the targeted student population, a flexible degree program was created. The program allows internal flexibility through the advisement process to address variations of student direct job related experience and specialized learning. The Master of Science in Health Services Administration Program is designed to accommodate both business and non-business baccalaureate students who typically need a series of background or prerequisite courses. Students who document either previous academic training or occupationally developed expertise will be given special consideration of selected coursework or prerequisite waiver. However, no

student will graduate with less than 33 hours of completed graduate coursework within the Master of Science in Health Services Administration Program.

Program Requirements

Core

Health Systems (3 hours required)

Policy (3 hours required)

Economics (3 hours required)

Law (3 hours required)

Management (3 hours required)

Accounting & Finance (6 hours required)

Marketing & Planning (3 hours required)

Quantitative Methods (3 hours required)

Research Methods (3 hours required)

Integrative Capstone (3 hours required)

In addition to the Core Courses, students will be required to also complete at least six hours of electives:

MSHSA Electives

(6 hours required)

Electives

Health Services Administration

Other Graduate Electives

Course Requirements

HSM 500-Health Care Systems

HSM 501-Health Policy

HSM 505-Health Economics

HSM 509-Legal Issues in Health Care

HRM 518 - Human Resource Management or other organization management course

FIN 525-Financial Management Problems

HSM 535-Financial Management of HCO (HSM 435)

HSM 525-Health Care Marketing and Strategic Planning (HSM 425)

MGS 511-Quantitative Business Analysis

HSM 680 Research Methods for HSA

HSM 685-HSA Environments and Strategies

Course Selection

HSM 522-Nursing Home Administration

HSM 531-Financial Management for Ambulatory Care Org

HSM 699-Thesis in Health Services Administration

HIM 501 - Health Care Infomatics

Any course offered in the MBA program or MS Accountancy program.

Other graduate courses are available

Requirements Notes

1. An introductory statistics and accounting course are required for this curriculum. Students will also be required to demonstrate computer competence with spreadsheets, word processing and databases by the end of the first semester. Competence may be determined by coursework or work experience.
2. In some cases undergraduate courses will satisfy a Core Course Requirement. This determination will be made upon admission.
3. At least 3 credits of electives must be Health Services Administration electives, however, students with a special interest may petition to complete the elective requirement without a health related elective.

Internship

Students without any health related experience will be required to complete a six-credit hour internship. The determination for this requirement will be made upon admission by the Program Director.

Degree Review for Master's Students

After completing 12 graduate credit hours, all students will be evaluated to determine whether their academic progress has been satisfactory to admit them into candidacy. Students who are not admitted into Candidacy will not be allowed to continue in the program. The Program Coordinator will use a student's G.P.A. to evaluate his or her academic performance. Students with a G.P.A. of 3.0 or higher will automatically be admitted into candidacy. The Program Coordinator will take one of the following actions for students whose G.P.A. is below a 3.0: (1) require the student to complete additional (i.e., remedial) coursework to enhance the student's skills in a specific area, e.g., writing, statistics; (2) allow the student to take one to two more graduate courses and require the student to obtain specific minimum grades, e.g., a B+, or higher to continue in the program; or (3) dismiss the student from the program and provide the student with academic/career advisement as appropriate.

Distance Learning

The Health Services Management Program embarked on its distance learning efforts in 1998 in an effort to make its Programs available and accessible to working professionals and persons who are place-bound and do not have HSM degrees at the undergraduate or graduate levels in their area. The Program chose a web-based asynchronous learning mode which allow students to work on their classes with a great deal of flexibility and within the confines of their personal circumstances. All that is required is a computer, an Internet connection and the desire to pursue a health services degree. Some basic computer skills are necessary. The Health Services Management Program uses the SUNY Learning Network (SLN) for its course management and technical support.

Graduate Distance Learning Guidelines

The purpose of the campus residency is to ensure program integrity and identify areas of student weakness. Students may be advised of the need to repeat selected coursework or engage in other such academic activities that will satisfy the reviewing panel's concerns. The scheduling of campus residencies will be done in consultation with the student's advisor.

- For students planning to complete a substantial number of credit hours online, a campus residency of 1-3 days, for testing and seminars, will be required. The residency will be available in May.
- The campus residency will be scheduled after the completion of 12 credit hours of Master of Science in Health Services Administration coursework completed online. Additional credit hours, but no more than six, will be permitted prior to the campus residency with permission of the student's advisor.
- Any student who is completing degree requirements both on campus and online will be required to schedule a campus residency after the completion of nine credit hours of Master of Science in Health Services Administration coursework online and a total of 15 credit hours. Additional credit hours

will be permitted prior to the campus residency with permission of the student's advisor. A second residency will be required if the student completes nine additional credit hours online.

- A second residency will be required at the conclusion of the student's coursework and prior to engaging in an internship. During the second residency a student presentation will be required that will include the major project completed for the Capstone Course – HSM 685.
- At the conclusion of the student's fourth online course, a minimum GPA of 3.0 is required. A lower GPA will result in academic counseling and may require the student to withdraw from the distance learning program. No more than two Cs will be permitted during the online program.

Full-time Faculty

Kimberly Jarrell, Assistant Professor of Management and Technology Management, Ph.D., Syracuse University.

James H. Morey, Associate Professor; M.B.A., George Washington University; CPA State of New York. Hospital merger/consolidations; nursing home establishment, expansion and acquisition, and operational analysis.

Gary D. Scherzer, Associate Professor; M.P.H., University of Tennessee. Public health, planning, marketing, health policy.

Janice Welker, Assistant Professor; Ph.D., Saint Louis University. Managed care, economics and capstone course.



Master of Science in Information Design and Technology

Overview

The Master of Science in Information Design and Technology is designed to meet the needs of those who design information and are interested in the uses of new media in communication and teaching. This degree would be of interest to those who support the design, development, and administration of communication technology initiatives as well as those who use information technology. The part-time program balances theory and practice, with the graduate gaining a firm understanding of information design and the application of technology in a variety of settings. Students learn to use new technologies, communicate information to various audiences, evaluate technology, and use it in educational and training settings. There are also limited opportunities for full-time study.

The program engages students in critical assessments of various media and their applicability for a given purpose. Students study how to select an appropriate medium for a particular message to a specific audience. They create original materials using a variety of tools for various media, including web pages, multimedia, illustrations, teaching tools, and animations. Students focus on one or more of the following areas:

- Instructional Media
- Educational Technology
- Web Development
- Graphic Design
- Professional Communication

Graduates are prepared for advancement in professional careers that include secondary school* and community college teaching, technical support, technical communication, public relations, marketing, instructional design and technology, publications, corporate communication and training for profit and non-profit organizations, healthcare management and other industries.

For more information: <http://idt.sunyit.edu>

* Contact NYS Education Department for specific information regarding your field of study.

Online or On Campus Options

To accommodate the needs of working professionals and as part of its ongoing efforts to better understand new learning modalities, students can opt to complete the program entirely online, on campus, or a combination of the two. Courses in the

IDT program will be offered online via the World Wide Web in asynchronous mode using the Angel learning system. The addition of a distance-learning component reflects the evolving nature of Information as a discipline as well as the interests and needs of students in the program, and the expertise and scholarly interests of faculty. Because one aspect of the IDT program is to study new ways in which information technologies may be used, it is natural to deliver the program using the latest technologies. This includes online learning and use of new online utilities, such as video casting, podcasting, Skype, wikis, Second Life and other advances as they are developed.

Computer Laboratories

The program has two high-end computer laboratories that will be used, in part, to support the graduate program: a Windows-based Pentium facility and an Apple system G5 lab. The Windows-based laboratory has 22 PCs for use with computer graphics, digital photography, computer visualization, animation, Web design, and desktop publishing. The laboratory has four group work areas for collaboration. The Macintosh Lab has 20 G5 dual processor machines with DVD video inputs. In addition to having all the capabilities of the PC lab, it also supports digital video. Both laboratories have high-end color as well as black and white output devices and scanners.

Admissions Criteria

1. A baccalaureate degree from an accredited university or college.
2. A minimum overall GPA of 3.0.
3. For those without a bachelor's degree in communications, rhetoric, journalism, English, linguistics, computer science, or a related field, at least 15 credits in appropriately related courses.
4. Recent letters of recommendation from two individuals, preferably from a professional supervisor and a faculty member.*
5. A portfolio documenting preparation for graduate study, including,*
 - a) An essay describing what you can bring to this program and why you wish to pursue this degree.
 - b) Additional selected materials supporting your preparation for graduate study, such as papers, presentations, and design work.

* A non-matriculated student who takes an IDT course and receives a B+ or higher does not need to submit a portfolio or recommendations to apply to enter the program.

Degree Requirements

The IDT program is currently offered on a part-time basis. Students interested in pursuing the program full-time, should consult with the program coordinator. The M.S. in Information Design and Technology consists of 33 credits, including four core courses, electives, and a thesis or project, as follows. Students must receive a “B” (3.0) or better in all core courses. Over the course of their studies, students can only apply two “C” grades in courses taken toward the degree. All students must have a GPA of 3.0 or higher to graduate.

1. CORE COURSES

12 credit hours

1. IDT 501 Information Theory
2. IDT 507 Information Technology
3. IDT 534 Information Design
4. A graduate-level research methods course, chosen from current research methods offerings in consultation with an advisor. Current offerings include:

| | |
|---------|---|
| CSC 507 | Data Analysis |
| SOC 532 | Methods of Research: Survey and Experimental Design |
| SOC 533 | Methods of Research: Statistical Analysis |
| SOC 534 | Methods of Research: Qualitative Research |
| ANT 531 | Ethnographic Data Collection and Analysis |

2. ELECTIVES

12 credit hours

Electives may be used to satisfy course prerequisites.

| | |
|---------|--------------------------------------|
| IDT 503 | Human Factors in Information Design |
| IDT 505 | Computing Environments |
| IDT 531 | Technical Editing |
| IDT 535 | Typographic Design and Communication |
| IDT 536 | Graphic Design |
| IDT 541 | Instructional Design |

| | |
|---------|--|
| IDT 545 | Change Theory and Information Technology |
| IDT 553 | Principles of Design for Desktop and Electronic Publishing |
| IDT 554 | Advanced Web Development and Design |
| IDT 555 | Ethical and Legal Issues of the Information Age |
| IDT 575 | Internship |
| IDT 585 | Seminar in Emerging Technologies |
| IDT 590 | Topics in Information Design and Technology |
| IDT 591 | Independent Study |

3. UNRESTRICTED ELECTIVES

6 credit hours

In consultation with adviser, students choose two additional graduate-level electives or an internship and one elective.

4. THESIS/PROJECT

IDT 599 Thesis/Project 3 credit hours

Working with faculty member teaching the course, or an adviser, students either write a thesis or complete a project for the program.

FACULTY

Mona de Vestel, Assistant Professor; M.P.S., Interactive Telecommunications New York University. B.S. Georgetown University.

Walter Johnston, Associate Professor; Ph.D., Cornell University. Technical writing and editing.

Russell L. Kahn, Associate Professor; Ph.D., University at Albany. Social, political, business and educational implications of the Web, Web design, and computer software documentation.

Steven Schneider, Associate Professor; Ph.D., Massachusetts Institute of Technology. Computer-mediated communication and computer-mediated instructional systems.

Kathryn Stam, Assistant Professor; Ph.D., Syracuse University. Social and ethical aspects of information technology in work organizations.



Master of Science in Nursing

Accreditation

The M.S. in Nursing program is registered by the New York State Education Department and is accredited by the Commission on Collegiate Nursing Education (CCNE, 1 Dupont Circle NW, Washington, DC, 202-887-6791).

Mission

The mission of the School of Nursing and Health Systems is to provide nursing education at the baccalaureate and master's level that focuses on collaboration, active participation in one's own learning, critical reflection, and creative practice to meet the needs of clients across the lifespan. Nursing education is built upon a general education of the arts and sciences that complements professional education in: nursing knowledge and theory; inquiry and research; leadership and community; nursing standards and professional practice.

Vision Statement

The School of Nursing and Health Systems faculty aspires to professional excellence in teaching, practice, scholarship, and service to the University and communities of Central and Upstate New York. Our vision is to be a community of nurse scholars and mentors guiding professional nurses as nurse leaders and advanced practitioners who are committed to professional ideals, lifelong learning, and meaningful practice within increasingly technological health care systems and communities.

Statement of Purpose and Program Goals

The graduates of this program are prepared at beginning and advanced levels of their practice to utilize theory, leadership, and research as the foundation of their practice. They are prepared to continue their education and to deliver quality nursing services that embrace the ethical code and legal standards of the profession to individuals, families, groups, and communities. The goals are to:

1. Integrate nursing knowledge with a blend of liberal education in the arts and sciences.
2. Provide an educational environment that promotes caring, critical reflection, collaboration, professionalism, and lifelong learning.
3. Mentor and guide nurses toward personal and professional transformation in nursing.
4. Foster clinical decisions and ethical practice in health care based upon the codes and standards of practice to meet unique needs of clients, families and within culturally diverse communities.
5. Promote the development of faculty in teaching, practice, community service, and scholarship within the nursing profession, community, and university.

Program Outcomes for the Master of Science in Nursing Degree

Derived from the School of Nursing and Health Systems goals are the program outcomes specific to the Master of Science in Nursing degree to prepare the graduate for advanced professional practice. At the completion of the master's program, the graduate will be able to:

1. Apply knowledge gained from theoretical and empirical knowledge in nursing and from related arts, natural, social, and behavioral sciences to advanced practice in nursing.
2. Synthesize concepts of community, teaching and learning, wellness, health promotion, leadership, and management in advanced practice to meet health care needs of individuals, families, groups, and culturally diverse communities.
3. Utilize critical reflection, collaboration, research, and caring in the delivery and administration of health care.
4. Integrate the code of ethics and standards of advanced specialty practice in decision making and independent judgments.
5. Collaborate and partner with consumers, providers, and organizations to provide meaningful services for others.
6. Demonstrate commitment to ongoing personal and advanced professional development through professional involvement, lifelong learning, and fostering an appreciation for doctoral study.

Sigma Theta Tau International

Iota Delta Chapter of Sigma Theta Tau International Honor Society of Nursing, includes in its membership students, alumni, faculty, and community leaders in nursing. The purposes of this society are to recognize superior achievement and the development of leadership qualities, foster high professional standards, encourage creative work, and strengthen commitment to the ideals and purposes of the profession. Eligibility is determined by scholastic achievement, evidence of professional potential, and/or marked accomplishment in the field of nursing.

Admission Requirements

To be considered for matriculation in the master's program, potential candidates must:

- Hold a baccalaureate degree with a major in nursing from an NLNAC or CCNE accredited program.
- Have a minimum 3.0 grade point average (on a 4.0 scale) for the last 30 hours of undergraduate or graduate level coursework.
- Demonstrate successful completion of a course in descriptive statistics.
- Currently be licensed or eligible for licensure as a Registered Professional Nurse in New York State.
- For Adult, Family and Gerontology Nurse Practitioner applicants only, demonstrate successful completion, within five years prior to NUR 566 enrollment, of an undergraduate health assessment course; for those whose undergraduate health assessment course was more than five years ago, NUR 514 (2 credits) is available.
- Have completed a minimum of one year's work experience as a professional nurse.
- Submit two letters of recommendation from professional nurses such as recent employers, faculty with whom the applicant has studied, or any other individual who can give evidence of the applicant's past and potential contribution to the profession.
- In writing, discuss concisely their reasons for seeking admission to the master's program, identify immediate and long-term professional goals, and relate intended contributions to the

professional field after completion of the master's program (please type response in a maximum of two double-spaced pages on the form provided at the back of this catalog).

- Participate in a personal interview with a member of the full-time faculty.

Admission Procedures

Once the Admissions Office receives the completed application, the applicant's credentials will be reviewed by faculty in the School of Nursing and Health Systems. This review occurs approximately February 1, June 1, October 1, and December 1. Selection is based on the applicant's qualifications and potential for growth and contribution to nursing. Applicants will be notified of the selection decision.

Matriculation Requirement: Health Clearance

All students must meet the health requirements of the nursing program and health agencies. Satisfactory health clearance must be complete and on file in the Health and Wellness Center prior to participation in each of the placements in agency settings for practical and/or clinical experiences. **Clinical clearance must be validated prior to the first scheduled clinical agency experience. Attendance at clinical activity without prior clinical clearance will result in clinical failure.**

Online Course Access

The School of Nursing and Health Systems offers selected courses online through the SUNY Learning Network on the World Wide Web in addition to traditional classroom instruction. Some courses may only be offered online in a given semester requiring that the student have access to the internet through personal home computer or other access venues. SUNYIT computer laboratories offer access to students at multiple on-campus locations including the School of Nursing and Health Systems Informatics Laboratory.

Degree Requirements

1. Adult nurse practitioner majors must complete a minimum of thirty-nine (39) semester hours of study, family nurse practitioner majors must complete a minimum of forty-five (45) semester hours of study, gerontological nurse practitioner majors must complete a minimum of forty-four (44) credits, nursing administration majors must complete a minimum of forty-three (43) semester hours of study and nursing education majors must complete a minimum of (36) semester hours of study applicable toward the Master of Science in Nursing degree.
2. Final responsibility rests with the student to assure all requirements are satisfied for the advanced degree. It is also the responsibility of the student to file an application for conferral of the advanced degree with the Registrar's Office at the beginning of the anticipated final semester of study.
3. Graduate students may repeat a graduate nursing course only once.
4. Graduate students may have no more than two Cs on their record at the time of graduation. Nurse practitioner students must receive a minimum grade of B in all components of all Nurse Practitioner major courses.
5. Adult nurse practitioner, family nurse and gerontological nurse practitioner majors must complete and pass a comprehensive final examination at the completion of their program of study.

Accelerated B.S./M.S. Programs for Professional Registered Nurses

This program offers qualified registered nurses the opportunity to earn both the B.S. and M.S. in Nursing within a shortened time frame. Students have the option of selecting either of three graduate specialty areas of concentration: nursing administration, adult nurse practitioner, or family nurse practitioner. Upon completion the graduate will be eligible to seek advanced practice certification in that specialty area. (For more information, see the SUNYIT Undergraduate Catalog.)

Master of Science in Nursing with a Major in Adult Nurse Practitioner

The Adult Nurse Practitioner Program is designed to prepare expert advanced practice primary care clinicians capable of providing care to adults in primary care settings. The program builds on the undergraduate foundation and develops advanced assessment, planning and evidence-based clinical management skills. The program emphasizes clinical competence through theoretical understanding and practical application to primary care practice. Clinical expertise is acquired through clinical placements in a variety of public, private, and community-based primary care agencies. The ANP student will complete 742 hours of clinical practice in this 39 credit-hour program of study. In addition, the program provides a strong foundation for doctoral study and research.

Program of Study

| | <i>Credits</i> |
|---|----------------|
| NUR 500 Theoretical Foundations for Nursing Practice | 3 |
| NUR 503 Advanced Nursing, Health Policy, and the Health System | 3 |
| NUR 555 Clinical Pharmacology | 3 |
| NUR 560 Nursing Research Methods | 3 |
| NUR 566 Advanced Practice Nursing Lecture | 3 |
| NUR 567 Advanced Practice Nursing Clinical | 2 |
| NUR 570 Clinical Pathophysiology | 3 |
| NUR 574 Adult Health Promotion and Disease Prevention Across the Lifespan | 2 |
| NUR 582 Beginning Level Adult Clinical | 2 |
| NUR 653 Adult Primary Health Care I | 2 |
| NUR 658 Women's Health Care | 2 |
| NUR 669 Adult Primary Health Care II | 3 |
| NUR 672 Intermediate Level Adult Clinical | 3 |
| NUR 682 Advanced Level Adult Clinical | 3 |
| NUR 692 Culminating Seminar for Nurse Practitioners | 2 |
| | 39 |

Master of Science in Nursing with a Major in Family Nurse Practitioner

The Family Nurse Practitioner Program is designed to prepare expert advanced practice primary care clinicians capable of providing care to families in primary care settings. The program builds on the undergraduate foundation and develops advanced assessment, planning, and evidence-based clinical management skills. The program emphasizes clinical competence through theoretical understanding and practical application to primary care practice. Clinical expertise is acquired through clinical placements in a variety of public, private, and community-based primary care agencies. The FNP student will complete 802 hours of clinical practice in this 45 credit-hour program of study. In addition, the program provides a strong foundation for doctoral study and research.

Program of Study

| | <i>Credits</i> |
|--|----------------|
| NUR 500 Theoretical Foundations for Nursing Practice | 3 |
| NUR 503 Advanced Nursing, Health Policy, and the Health System | 3 |
| NUR 531 Family Theory | 2 |
| NUR 555 Clinical Pharmacology | 3 |
| NUR 560 Nursing Research Methods | 3 |
| NUR 566 Advanced Practice Nursing Lecture | 3 |
| NUR 567 Advanced Practice Nursing Clinical | 2 |
| NUR 570 Clinical Pathophysiology | 3 |
| NUR 572 Family Health Promotion and Disease Prevention Across the Lifespan | 3 |
| NUR 580 Beginning Level Family Clinical | 2 |
| NUR 652 Family Primary Health Care I | 3 |
| NUR 658 Women's Health Care | 2 |
| NUR 668 Family Primary Health Care II | 4 |
| NUR 670 Intermediate Level Family Clinical | 3 |
| NUR 680 Advanced Level Family Clinical | 4 |
| NUR 692 Culminating Seminar for Nurse Practitioners | 2 |
| | <u>45</u> |

Master of Science in Nursing with a Major in Gerontological Nurse Practitioner

The Gerontological Nurse Practitioner Program is designed to prepare expert advanced practice primary care clinicians to provide care to the elderly in primary care settings. The program builds on the undergraduate foundation and develops advanced assessment, planning and evidence-based competence through theoretical understanding and practical application to primary care practice. Coursework includes nursing research, health policy, family theory, and primary health care of the elderly. Gerontological Nurse Practitioner students test principles in on-campus laboratory settings and in the community. They experience care of the elderly in a variety of settings in the community including hospitals, health care agencies, home care, hospice, and nursing home settings. The Gerontological Nurse Practitioner student will complete 802 clinical hours. This is a 44 credit-hour program. In addition, the program provides a strong foundation for doctoral study and research.

Program of Study

| | |
|---|-----------|
| NUR 500 Theoretical Foundations for Nursing Practice | 3 |
| NUR 503 Advanced Nursing, Health Policy, and the Health System | 3 |
| NUR 560 Nursing Research Methods | 3 |
| NUR 570 Clinical Pathophysiology | 3 |
| NUR 555 Clinical Pharmacology | 3 |
| NUR 566 Advanced Practice Nursing Lecture | 3 |
| NUR 567 Advanced Practice Nursing Clinical | 2 |
| NUR 531 Family Therapy | 2 |
| NUR 576 Foundations of Gerontological Health Promotion and Disease Prevention | 3 |
| NUR 584 Beginning Level Gerontological Clinical | 2 |
| NUR 654 Gerontological Primary Health Care I | 3 |
| NUR 659 Gynecological Health Care of Elders | 2 |
| NUR 667 Gerontological Primary Health Care II | 4 |
| NUR 674 Intermediate Level Gerontological Clinical | 3 |
| NUR 684 Advanced Level Gerontological Clinical | 3 |
| NUR 692 Culminating Seminar for Nurse Practitioners | 2 |
| | <u>44</u> |

Advanced Certificates in Adult, Family & Gerontological Nurse Practitioner

The School of Nursing and Health Systems is authorized by the New York State Education Department to offer advanced certificates in adult, family, and gerontological nurse practitioner to registered nurses who already possess both baccalaureate and master's degrees in nursing from accredited programs. Admission requirements for these post-master's certificate programs are the same as for the School's graduate program (except applicants must have a minimum 3.2 grade point average (on a 4.0 scale) for all graduate level work completed and they do not have to submit scores from the Graduate Records Examination).

Requirements for the advanced certificate in adult nurse practitioner total 30 credits; in family nurse practitioner, 36 credits; and in gerontological nurse practitioner, 35 credits. Enrollees follow the same program of study for the master of science in nursing in their respective major except they are not required to take NUR 500, NUR 503, and NUR 560. The faculty realize that students in the post-master's certificate programs will come with a variety of backgrounds and experience. Students will need to meet with an advisor early in the course of study to determine specific clinical needs. Every effort will be made to provide students with both necessary and desired clinical experiences.

Master of Science in Nursing with a Major in Nursing Administration

The Nursing Administration Program is designed to prepare professional leaders who will creatively advance the practice of nursing and facilitate the delivery of cost-effective care through the application and testing of administrative knowledge and skills. The Nursing Administration student will complete a practicum in a nursing administration role selected from a variety of health care agency options. This 43 credit-hour program provides a strong foundation for doctoral study and research.

Program of Study

| | <i>Credits</i> |
|--|----------------|
| NUR 500 Theoretical Foundations for Nursing Practice | 3 |
| NUR 503 Advanced Nursing, Health Policy, and the Health System | 3 |
| HIM 501 Health Care Informatics | 3 |
| CSC 507 Data Analysis | 3 |
| NUR 608 Health Care Systems Seminar | 3 |
| NUR 610 Nursing Administration Seminar | 3 |
| NUR 611 Nursing Administration Internship | 3 |
| HRM 518 Human Resource Management | 3 |
| NUR 522 Financial Management for Nurse | 3 |
| NUR 524 Program Planning and Development | 2 |
| NUR 526 Legal and Regulatory Issues in Health Care | 3 |
| NUR 560 Nursing Research Methods | 3 |
| MGT 607 Organizational and Management Theory | 3 |
| NUR 624 Grant Proposal Seminar | 3 |
| NUR 627 Culminating Seminar for Nurse Administrators | 2 |
| | <u>43</u> |

Advanced Certificate in Nursing Administration

The School of Nursing and Health Systems is authorized by the New York State Education Department to offer a post-master's Advanced Certificate in Nursing Administration.

The program is also intended for graduates of the ANP/FNP/GNP programs and other specialty nurses who hold a variety of graduate degrees in nursing, and who seek additional skills and knowledge in leadership and management for enhancement or advancement in their expanded roles. Successful completion of the Advanced Certificate in Nursing Administration would enable eligible students to sit for the American Nurses Credentialing Center's Nursing Administration National Board Certification Exam.

Master of Science in Nursing with a Major in Nursing Education

The Master of Science in Nursing Education program promotes the core application of theory, research, and health care policy to the role of the nurse educator within the academic and in-service settings. The program includes cognate courses in areas of grant proposal, measurement and assessment, and legal issues. To complement the core and cognate courses there are specialty courses in curriculum development, instructional designs, and evaluation approaches. The culmination of these courses will be applied within the 300 hour internship experience whereby students will have opportunities to design, implement, and evaluate their own teaching practicum under the supervision of a nurse educator mentor.

Program of Study

| | <i>Credits</i> |
|---|----------------|
| NUR 500 Theoretical Foundations for Nursing | 3 |
| NUR 503 Advanced Nursing, Health Policy, and the Health Systems | 3 |
| NUR 535 Curriculum Development in Nursing Education | 3 |
| NUR 545 Instructional Design in Nursing Education | 3 |
| NUR 560 Nursing Research Methods | 3 |
| NUR 526 Legal Issues in Health Care | 3 |
| PSY 570 Measurement and Assessment | 3 |
| NUR 635 Evaluation Approaches in Nursing Education | 3 |
| NUR 624 Grant Proposal | 3 |
| NUR 645 Culminating Internship in Nursing Education | 3 |
| Graduate Electives | 6 |
| | 36 |

Certificate Program

The Post Master's Certificate in Advanced Study (CAS) in Nursing Education program focuses on the specialty courses in curriculum development, instructional designs, and evaluation approaches with the addition of the cognate courses: grant proposal and measurement and assessment. This 18 credit CAS in Nursing Education program also includes the application of the nursing education specialty courses within the culminating 300 hour internship experience under the supervision of a nurse educator mentor.

Program of Study:

Post Master's Certificate in Nursing Education

| | <i>credits</i> |
|---|----------------|
| PSY 570 Measurement and Assessment | 3 |
| NUR 624 Grant Proposal | 3 |
| NUR 535 Curriculum Development in Nursing Education | 3 |
| NUR 545 Instructional Design in Nursing Education | 3 |
| NUR 635 Evaluation Approaches in Nursing Education | 3 |
| NUR 645 Culminating Internship in Nursing Education | 3 |
| | 18 |

Faculty

Esther G. Bankert, Dean/Professor, Nursing; A.A.S., Maria College, B.S. Mt. Saint Mary College, M.A. New York University, Ph.D. State University of New York at Albany.

Mary Lou Wranesh Cook, Professor, Nursing, B.S., University of Rochester, M.S. University of Rochester, Ph.D. State University of New York at Albany.

Louise A. Dean-Kelly, Associate Professor, Nursing; B.S., State University of New York at Albany, M.S. State University of New York at Stony Brook, D.N.S. State University of New York at Buffalo.

Deborah A. Hayes, Clinical Assistant Professor, Nursing, Diploma Albany Medical Center School of Nursing; B.S., State University of New York Institute of Technology at Utica/Rome, M.S. State University of New York at Binghamton.

Lorraine M. Kane, Associate Professor, Health Information Management; B.S., Daemen College, M.S. State University of New York at Binghamton.

Victoria Kozel, Instructor, Nursing, A.A.S., Mohawk Valley Community College, B.S./M.S. SUNY Institute of Technology Utica/Rome, Doctoral Study in progress at University of Phoenix.

Christeen Liang, Clinical Assistant Professor, Nursing, Diploma Worcester Hahnemann Hospital; B.S.N., State University of New York Health Science Center at Syracuse, M.S., State University of New York at Binghamton, Doctoral Study in Progress at SUNY Binghamton.

Gina Myers, Assistant Professor, Nursing, B.S., Binghamton University, B.A. Binghamton University, M.S., SUNY Institute of Technology Utica/Rome, Ph.D. Binghamton University.

Kathleen F. Sellers, Associate Professor, Nursing; B.S., Niagara University, M.S.N. The Catholic University of America, Ph.D., Adelphi University.

Amy Shaver, Assistant Professor, Nursing, Diploma Albany Memorial School of Nursing, B.S. SUNY Institute of Technology; M.S., SUNY Institute of Technology, Doctoral Candidate at SUNY Binghamton.

Donna L. Silsbee, Associate Professor, Program Coordinator, Health Information Management, B.S. State University of New York at Albany, M.S. State University of New York at Binghamton; Ph.D., State University of New York at Albany, "The State University Chancellor's Award for Excellence in Teaching, 2000."

Pat Zawko, Assistant Professor, Nursing, A.A.S. Mohawk Valley Community College, B.S. SUNY Institute of Technology Utica/Rome, M.S. SUNY Institute of Technology Utica/Rome, Doctoral study in progress at University of Phoenix.

Master of Science in Telecommunications

Director's Message

The M.S. in Telecommunications is an application oriented program designed to accommodate those individuals with a technology, business or general studies baccalaureate degree, and who are seeking graduate level telecommunications education in order to secure entrance to, or advancement within, the dynamic field of telecommunications.

The Master of Science program in telecommunications requires 33 credit hours of graduate coursework in telecommunications, business and computer information systems in combination with one of the following: thesis or research project. Courses and advisement are conveniently offered so that both full and part-time students can complete the degree in reasonable time.

Instruction is applications oriented, and takes place both in lectures and in hands-on laboratory exercises in four state of the art telecommunications laboratories. Students are also strongly encouraged to participate in the Telecommunications summer internship program.

The Telecommunications program at SUNYIT has gained an international reputation for its industry orientation. Advised by a dynamic thirty-person telecommunications industry advisory board, the Master of Science in Telecommunications investigates critical areas of advanced telecommunications technologies, network design and simulation, project management, regulation, international telecommunications policy and trade issues, strategic planning, and business continuity planning. Original and substantial student research on a significant topic is demonstrated in the thesis and research project.

The Department possesses an academically and industry experienced faculty with research, teaching and consulting achievements in the core telecommunications subject areas. The faculty's experience and current activities are diverse and global, having been obtained in North America, Europe and the Asia-Pacific region.

The Department has extended its quality academic and research interests through the creation of a twinning program for the Department's M.S. in Telecommunications degree with the Department of Telecommunications Science at the Assumption University in Bangkok Thailand.

The Department has created rewarding relationships with industry associations. Among these are a Cisco Networking Academy which is a cooperative venture between higher educational institutions and Cisco, the world's leading networking company. In a lab setting that closely corresponds to the corporate workplace, students get their hands on the building blocks of today's global information

networks, learning by doing as they design and bring to life local and wide-area networks.

The Telecommunications department is also an educational partner of the Global Wireless Education Consortium. GWEC is a collaboration of wireless industry companies and academic institutions. GWEC is focused on expanding wireless technology curriculum in two-year and four-year academic institutions.

The Department is a member of the Information Systems Security Association (ISSA), the Wall Street Technology Association (WSTA), and the Pacific Telecommunications Council (PTC). These prestigious organizations encourage excellence in telecommunications management; provide forums for the evaluation of emerging technologies and their business applications; stimulating peer-to-peer relationships and the sharing of information; providing ongoing insight into regulatory and trade issues; and fostering constructive relationships between telecommunications end users and a select group of higher education institutions that offer telecommunications degree programs. These organizations also sponsor seminars and workshops, conferences, trade shows and field trips.

SUNYIT possesses extensive library holdings in support of the telecommunications program. This includes a large number of periodicals in telecommunications subject areas. The M.S. in the Telecommunications program is designed to meet the needs of part- and full-time students seeking quality education and preparation for career advancement in the dynamic one trillion dollar per year global telecommunications industry.

Financial aid may be available for academically qualified students.

Kevin R. Lefebvre, Ph.D.

Admissions Criteria

A baccalaureate degree with an upper division major in telecommunications, engineering, engineering technology, computer science, photonics, business or a related area from an accredited college or university is required.

Applicants with deficiencies in mathematics, computer science/information systems, business or telecommunications may be required to take appropriate prerequisite coursework.

Applicants must submit Graduate Record Exam test scores taken within the past five years. Information on this test appears in the general information section of the Graduate College Catalog.

Prerequisite Coursework

- Calculus 1 or equivalent.
- Applied Statistical Analysis or equivalent
- Students who require prerequisite coursework or wish to apply to substitute professional industry experience must consult with graduate advisor to determine appropriate course selection or substitution.

Other Admissions Criteria

1. Evidence of personal and professional qualifications via three professional references.
2. A narrative statement by the applicant describing his/her professional objectives for graduate study.
3. Applicants must have maintained an average of B or better for the last thirty credit hours toward a baccalaureate degree or graduate coursework (a GPA of 3.0 on a 4.0 scale). If undergraduate GPA is between 2.8 and 3.0, applicants may be considered if they can demonstrate graduate potential via other means. Applicants possessing undergraduate GPAs below 2.8 may be considered for discretionary admission after completion of non-degree coursework as required by the Department of Telecommunications.

ADVANCEMENT TO CANDIDACY REQUIREMENTS

1. Students must successfully complete TEL 598 as part of their first 15 graduate credits. Students who fail to register for and complete TEL 598 during this time will be dismissed from the program.
2. A review of student academic performance will take place at the conclusion of TEL 598. Students who have a graduate GPA of 3.0 or higher in the program, and who received a Satisfactory grade ("S"), in TEL 598 will be advanced to candidacy.
3. Students who have a GPA of less than 3.0 will be placed on academic probation.
4. Students who have an Unsatisfactory ("U") in TEL 598 will be placed on academic probation and will be restricted to one course per semester while on probation. Such students will further be required to re-take TEL 598 the next time the course is offered. Should the student fail to re-take the course in a timely manner, or fail to achieve a Satisfactory ("S") grade when the course is retaken, the student will be dismissed from the program.

MS Telecommunications Program

(33 total credits required for degree)

Prerequisites:

- Calculus I or equivalent
- Applied Statistical Analysis or equivalent

RESEARCH CORE (9 credit hours)

- CSC 507: Data Analysis
- MGS 511: Management Science
- TEL 598: Telecom Research Methods

CORE ELECTIVES (18 credits)

includes 6 courses from the following:

- TEL 500: Voice Communications
- TEL 501: International Telecommunications Policy & Trade
- TEL 502: Data Communications
- TEL 505: Network Design and Simulation
- TEL 520: Telecommunications Systems Analysis & Project Mgmt
- TEL 530: International Law and Policy
- TEL 540: Integration of Telecom & Computer Systems
- TEL 580: Strategic Integration of Telecom into a Comprehensive Environment
- TEL 581: Survey of Info Assurance
- TEL 582: Security for Telecom Networks
- TEL 585: Telecom Electronic Commerce
- TEL 590: Selected Topics in Advanced Telecommunications*
- TEL 594: Graduate Internship

CULMINATING REQUIREMENT OPTION

- TEL 597: Research Project (6 credits)
- OR
- TEL 599: Thesis (6 credits)

* Students may take additional sections of TEL 590, as long as the Selected Topics covered are not the same.

Faculty

David M. Climek, Lecturer, M.S. Telecommunications, SUNY Institute of Technology, M.S. Business, SUNY Institute of Technology. Information assurance, disaster planning and recovery Member Software Defined Radio Forum (SDR), IEEE, Armed Forces Communications and Electronics Association (AFCEA).

Larry Hash, Associate Professor of Telecommunications; Ph.D., North Carolina State University. Wireless telecommunications systems, data networks, and internetworking. Member of the IEEE, American Society of Engineering Educators, and the Interactive Media Association.

Eugene J. Newman, Professor of Telecommunications; Ph.D., University of Wisconsin. International telecommunications policy and trade issues, project management. Member of the IEEE Communications Society, the International Telecommunications User Group, the Pacific Telecommunications Council, the Wall Street Technology Association, and the Association of Public Safety Communications Officers (APCO).

Kevin R. Lefebvre, Assistant Professor; Ph.D., University of Connecticut. Information assurance, transport networks, optical networks. Member of IEEE, SPIE, OSA, Eta Kappa Nu, Sigma Pi Sigma, MRS, ASEE.

M.S. Telecommunications Twinning Program with Assumption University, Bangkok, Thailand

The Department of Telecommunications at SUNYIT and the Department of Telecommunications Science at Assumption University have established a twinning program whereby students from Assumption University may transfer up to 15 credits of graduate telecommunications courses, with a grade of "B" or better, to the M.S. Telecommunications Program at SUNYIT, and then successfully complete the remainder of the requirements for the M.S. Telecommunications degree at SUNYIT.

Telecommunications Institute

The mission of the Telecommunications Institute, located at SUNYIT, is to develop and extend research and training in the telecommunications industry. The Institute was established through the joint efforts of the Institute and NYNEX Systems Marketing.

The Telecommunications Institute focuses on providing both training and information to professionals in the field of telecommunications. The Institute's seminars deal with a wide variety of topics in telecommunications, including equipment, voice/data networks, system management, and cabling/wiring technology. These sessions may incorporate teleconferencing and other distance learning techniques, as well as equipment demonstrations. The Institute also draws on SUNYIT's extensive telecommunications laboratory and its integrated voice and data network to enhance its educational pursuits outside of the classroom.

Telecommunications Advisory Board

The Advisory Board, consisting of over 30 industry executives including those representing the end-user community, service and equipment suppliers, consultants, academicians, and policy makers, meets on a regular basis to shape the program's continued growth and development. These members give their time and effort to keep SUNYIT's Telecommunications programs on the leading edge of this fast-paced industry, as well as arranging for scholarships and equipment donations.

Current members of the advisory board come from such companies and organizations as MCI, Sprint, United Parcel Service, AT&T, NORTEL, Citigroup, Intermedia Communications Inc., Securities Industry Association, GTE, New York State Telecommunications Association, Communications Managers Association, NYSERNET, Corning Glass, GN Net-test, Cigna and IBM Global Services.

Internships

All telecommunications students are encouraged to participate in the Department's active summer internship program

Facilities

The telecommunications program is supported by more than \$5 million in modern facilities and equipment. Most of this has been donated by industry, reflecting its strong support for the Department and its programs.

The Telecommunications Department maintains five "hands-on" laboratories for student and faculty experimentation. These include a digital telephone switching and transmission laboratory (Donovan Hall Room 1240), a Local Area Network laboratory (Donovan Hall Room G143), Router and Switching lab (Donovan Hall Room G145) a Computer Based Training lab (Donovan Hall Room 1190), and an optical networks laboratory (Donovan Hall Room 9133)

An abbreviated list of the telecom laboratory resources follows:

- Nortel-Bay ATM Centillion 50 switching platform
- Northern Telecom DMS-10 Central Office Switching System
- Northern Telecom Meridian 1 PBX System - fully optioned
- Northern Telecom Meridian Link Adjunct Processor
- Northern Telecom D4E Smart Channel Banks
- Northern Telecom DMS-1 Urban Digital Loop Carrier System
- Octel Voice Messaging System with Automated Attendant
- Newbridge MainStreet Channel Bank
- Tie Data/Star PBX System
- Redcom Labs MDX Central Office and Teletraffic Generator
- TTI Digital Access and Cross-Connect System
- ADC Fiber Patch Panel and Optical Loop Terminator
- NEC Fiber Optic Channel Multiplexors and Channel Banks
- TTC Fireberd 4000, 6000 and 224 Digital Transmission Sets
- Dialogic Corp. D4/X Voice Processing Platforms
- AT&T BNS 2000 SMDS Switching Platform
- Cisco Network Academy File Server
- Mil3 OPNET Simulation Software
- Cadence BONEs Designer Simulation Software Program
- CACI COMNET III Simulation Software
- Network Analysis Center Modular Interactive Network
- Network Sniffer LAN Analyzer

Accounting

ACC 520 Accounting for Managers (3)

The objective of this course is to familiarize students with the basic principles of short-term financial planning. Topics coverage shall include (1) trends flow statement development and analysis, on both cash and working capital bases, (2) common size analysis, (3) index analysis, (4) cash budgeting, (5) working capital management, (6) pro forma statement development and analysis, and (7) general forecasting methodologies (including subjective, historical, and causal techniques).

ACC 571 Advanced Management Accounting (3)

Students will learn techniques for budgeting, cost-volume-profit analysis, segment evaluation and analyzing operating constraints. They will research and develop solutions to various advanced management accounting problems through case studies and problems from the CMA Exam. Finally, the students will present their analysis and recommendations orally and in writing. Prerequisite: Management Accounting (ACC 305), or Cost Accounting (ACC 370) or equivalent.

ACC 585 Financial Statement Analysis and Reporting (3)

Investigates business objectives through financial analysis, cash budgeting, and ratio analysis. Additional topics may include capital budgeting, utility analysis, basic portfolio concepts, the capital asset pricing model, and the study of efficient markets. Long-term financing strategies of the corporation, including the theory of valuation for corporate securities, capital structure theory, dividend policy, and analysis of overall cost of capital to the corporation. Prerequisite: ACC 520.

ACC 591 Independent Study (3)

Extensive study and research on a particular topic of student interest under the supervision of a faculty member. The student is required to submit a written proposal which includes a description of the project, its duration, educational goals, method of evaluation and number of credits to be earned.

ACC 595 Internship (3)

Internship placements provide students with a field experience related to their academic preparation enabling them to apply classroom instruction to the work site. Students are placed with an organization related to their major and specific area of interest to work along with, and be proctored by, experienced professionals. These are opportunities that cannot be duplicated in the classroom environment and provide an excellent transition into the field.

ACC 611 Advanced Income Tax Research (3)

Focus on the study of federal tax legislation and IRS regulation of corporations, partnerships, estates and trusts. Special attention is given to capital gains and losses, normal tax and surtax, income and deductions for domestic, international, and multinational corporations. Tax research will be conducted through the analysis of IRS rulings on court cases.

ACC 630 Fund Accounting (3)

Accounting principles and procedures as applied to not-for-profit entities are covered. In addition, the accounting standards and reporting requirements that relate to not-for-profit entities will be reviewed and analyzed.

ACC 650 Advanced Auditing Theory (3)

Advanced review of auditing standards and techniques, computerized auditing systems, SEC regulations, legal liability, and professional ethical standards.

ACC 685 Advanced Financial Accounting Theory (3)

An examination and analysis of Generally Accepted Accounting Principles (GAAP). The course reviews Financial Accounting Standards (FAS) in detail and includes a critical review of the research that is at the theoretical foundations of GAAP. In addition, the process by which the Financial Accounting Standards Board promulgates new FAS will also be analyzed.

Advanced Technology

MST 502 Engineering Economy (3)

Study of the application of technical and economic analysis, with the goal of deciding which course of action best meets technical performance criteria and

uses scarce capital in a prudent manner. Applied software technology will be used to analyze the economy of new product designs, structures, systems, qualities, reliabilities, and services. Prerequisite: College Algebra.

MST 503 Recent Advances in Technology (3)

This course will analyze current and future trends and original research advances in the two concentration areas of the MSAT program. The course will include seminars, invited lectures and visits. It will be taught by a team of instructors.

MST 510 Engineering and Society (3)

The interaction between engineering and society has had many unexpected results. Students will learn how the major engineering systems have impacted society and how society changed the final design of the engineering systems. The course will look at both intended and unintended consequences of the final engineering design.

MST 515 Transportation Terminal Design (3)

Transportation terminal design requires that engineers look at the interactions between passengers, freight and the transportation systems that they use. The design of terminals is a key component of a transportation system. Terminals are designed to provide security, storage, and access to different modes of transportation. The course will focus on airports, rail stations and truck terminals.

MST 520 Network Technology for Multimedia Systems (3)

The course deals with the study of networking for automated manufacturing, medical and commercial systems. Protocols, configurations, topologies, such as broadband cable and for dynamic networks are discussed. Use of optical networks for interactive video, wireless networks and virtual reality for industrial usage will also be introduced.

MST 525 Issues in Transportation (3)

Examines issues affecting the transportation industry. Issues include toll roads, security, congestion management, Intelligent Transportation Systems and telecommuting and issues of interest to the class. Discussions focus on the methods involved and the societal impacts due to changing the current transportation system. Pre/Corequisites: MST 510 or permission of the instructor.

MST 535 Advanced Traffic Engineering (3)

Advanced course in traffic operations analysis. Topics include traffic flow theory, signalized control theory, interchange analysis, and small and large network analysis using simulation. Prerequisite: CTC 340 or equivalent.

MST 540 HVAC System Design (3)

HVAC system design, Comfort Design/Product Categories, Psychrometric Theory, Applied Psychrometrics, Mechanical refrigeration, Load Estimating, Design Project. Prerequisites: An undergraduate degree in Mechanical Engineering Technology / Engineering or consent of instructor.

MST 550 Constant Volume System Design (3)

Constant Volume Packaged and Split System Design, Concepts of Exposure Zoning, Occupancy Zoning and Zoning with Unzoned Systems, Outdoor Air Analysis, Packaged Equipment Familiarization and Selection, Room Air Distribution, Duct Design, Direct Digital Control (DDC) Systems, Packaged Split Systems, Refrigerant Piping Design, Design Project. Prerequisites: An undergraduate degree in Mechanical Engineering Technology/Engineering or consent of instructor.

MST 560 Variable Volume/Temperature (VVT) and Variable Air Volume (VAV) System Design (3)

Variable Volume/Temperature (VVT) and Direct Expansion Variable Air Volume (VAV) System Design, Product Recognition, Applied HVAC Acoustics, Zoning and Central Equipment, VVT Air Terminal Design, VAV Air Terminal Design, Direct Expansion (DX) Coils/Air Handlers Familiarization, Split System Selection/DX Piping Design, VAV Fan Performance and Control Systems, Design Project. Prerequisites: An undergraduate degree in Mechanical Engineering Technology/Engineering or consent of instructor.

MST 570 Design and Analysis of Experiments (3)

The use of experiment design early in the product cycle can substantially reduce development lead time and cost, leading to processes and products that perform better in the field and have higher reliability than those

developed by using other approaches. Students will learn principles as well as implementation of experimental design in developing products and manufacturing processes that are robust to environment factors and other sources of variability.

MST 571 Applied Water System Design (3)

Applied Water System design, Water Coils, Fan Coil/Air Handling Units, Control Valves, Piping System Layout, Water Pipe Sizing, Chiller Systems/Selection, Water Pumps, Cooling Towers, Design Project. Prerequisites: An undergraduate degree in Mechanical Engineering/Technology/Engineering or consent of instructor.

MST 576 Mechanical Design with ALGOR & ProE (3)

In-depth study of Finite Element Theory and its application. Emphasis will be given to discretization, modeling and interpretation of results. Software packages such as ALGOR and ProE will be extensively used. Two hours of lecture and two hours of laboratory per week. Prerequisites: MST 500, MAT 322 or equivalent.

MST 580/CSC 580 Computer and Robotic Vision (3)

Two and three dimensional systems, image formation, sensor devices, illumination, processing of images, feature extraction & recognition, robotics inspection, actor devices.

MST 598 Industrial Instrumentation & Signal Processing (3)

In-depth study of instruments and methods for measuring phenomena such as temperature, pressure, speed, and acceleration, with an emphasis on industrial applications. Topics include the generation of signals by electro-mechanical transducers, computer-based data acquisition and storage, and processing of electrical signals using techniques such as amplification, conditioning, filtering, and analog-to-digital conversion.

MST 622 Intelligent Control Systems (3)

First, the traditional control techniques are introduced and contrasted with intelligent control. Fuzzy logic then, is introduced as one of the methods for representing and processing information. Advantages of fuzzy logic over other techniques are pointed out, while indicating some limitations as well.

MST 640 Dynamics of Rigid Body (3)

In depth study of planar kinematics and kinetics of Rigid Body. Topics include translation, rotation principle of work and energy, impulse angular momentum, and gyroscope motion. Prerequisite: MTC 430 or Calculus Based Dynamics Course.

MST 673 System Simulation (3)

The course addresses the following topics: Overview of computer modeling and simulation, systems and models, queuing theory, simulation of discrete and continuous systems, simulation software packages.

MST 680 Reliability and Quality Assurance (3)

This course is a study of applications of reliability-maintainability models, reliability testing and analysis, and quality engineering-design, process, control and quality transformation. Prerequisite: Statistics, Statistical Quality Control or equivalent or consent of instructor.

MST 682 Topics in Computer Integrated Manufacturing (CIM) (3)

An overview of the components of CIM Enterprise, System Design, Material Handling, Materials Requirement Planning (MRP), Manufacturing Resource Planning (MRPII), Manufacturing Database and Management, Expert Systems for Manufacturing. Two hours of lecture and two hours of laboratory per week. Prerequisites: An undergraduate course in CAD or CAM or CIM, or consent of instructor.

MST 690 Project (3)

The course deals with the design or in depth analytical or experimental study of a topic chosen from the area of advanced technology. Oral examination and formal, bound report is required. Project will be conducted under the guidance of appropriate faculty. It will be assigned on the basis of faculty interest and preparation of the students. Prerequisite: Graduate status.

Anthropology

ANT 531 Methods of Research: Ethnographic Data Collection and Analysis (3)

Examines the epistemological presumptions and methodological strictures of field work/participant observation in the anthropological tradition.

Compares this to Positivist and Postmodernist approaches. Trains students to use ethnographic methods and compares them with other qualitative methods informed by this perspective (i.e. in-depth interviews and content analysis) in applied research and practice settings. Evaluates a range of contemporary appropriations of the ethnographic gaze from information systems development to evaluation. Cross listed with ANT 460.

Applied Sociology

SOC 500 Designing Interventions (3)

Investigates the relationship between an understanding of a problem and the development of a specific program/intervention. Techniques addressed include goal and objective formation, and the integration of the intervention into the organizational setting. Examines existing programs/interventions as to their conceptual basis and analytical approach.

SOC 510 Social Paradigms and Interventions (3)

Explores the strengths and weaknesses of the paradigms (interrelated epistemological, theoretical, and methodological ideas) that shape sociological practice. Emphasizes classic and contemporary paradigms rooted in empiricism, materialism, and subjective idealism. Encourages students to pursue integrative approaches to the formulation, execution, and evaluation of interventions.

SOC 521 Crime and Social Policy (3)

Examines and evaluates criminal justice policy in the United States from historical, structural, and cross-national perspectives. Reviews theory and research supporting fundamental reconceptualizations of crime and criminal justice. Systematically explores alternatives to existing policy.

SOC 532 Methods of Research: Survey and Experimental Design (3)

Places emphasis on positivist approaches to social research processes in applied settings. Applies hypothesis construction, research design, and data collection and data analysis to needs assessment and evaluation requirements of organizations. Utilizes the Statistical Packages for the Social Sciences (SPSS) to construct and analyze real world databases. Prerequisite: Undergraduate Statistics with a B- or better.

SOC 533 Methods of Research: Statistical Analysis (3)

Reviews causal logic and uses descriptive statistics, cross-tabulation and regression analysis, as well as other relevant inferential statistical techniques, to analyze social data with emphasis upon program outcome and evaluation data. Examines the significance of the requisite assumptions and interpretation of findings for specific statistical techniques. Relies on computer based analysis using SPSS. Prerequisite: SOC 532.

SOC 534 Methods of Research: Qualitative Research Techniques (3)

Explores qualitative research methods including in-depth interviewing, oral history, content analysis, historical research, narrative analysis, visual data, participant observation, case study research, and others within the context of community development. Reviews models and methods of participatory and collaborative research from fields including sociology, geography, planning, natural resources, anthropology, history, community and occupational health, and community, rural and urban development, among others.

SOC 574 Drug Epidemics (3)

Explores the conditions under which societal-wide drug epidemics (rapid rises in the use of psychoactive substances) occur. Examines in detail the current resurgence of drug use among youth that began among the youngest drug users in the early 1990s. Employs national trend data to determine onset conditions, the sociological characteristics of groups that led the epidemic, the pathways through which drug use expands in specific age groups, and the consequences of rising rates of drug use by the youngest users. Emphasizes empirically based identification of strategic points for societal intervention. Serves as an introduction to aggregate data analysis.

SOC 590 Selected Topics in Sociology (3)

Provides students with the opportunity to investigate selected sociological subject matter. Topics will typically illustrate the application of sociological and anthropological theory and research to social services or criminology. Students may receive credit in a future semester for different topic areas.

SOC 591 Independent Study in Sociology (3)

Provides an opportunity for students to go beyond the existing curriculum. Requires an application and the agreement of a faculty advisor. (Pending)

SOC 595 Practicum in Sociology (3)

Integrates academic and practical experience during one semester placement in an appropriate social service, criminal justice, or work-related community setting. Involves execution of a social practice project, negotiated among student, staff, and placement supervisor. This requirement is waived if the student has appropriate experience in a practice setting.

SOC 596 Proposal and Grant Writing Seminar (3)

Explores all aspects of the proposal process from the most basic questions about form and style to the task of seeking funding and support, or committee approval, to what to do after the proposal is approved or funded. In particular, the focus is on developing, designing, preparing, and presenting effective research proposals to university review committees and funding bodies.

SOC 597 Seminar in Applied Sociology (3)

Supports completion of a viable independent scholarly project. Students will work with an advisor to design, develop, conduct, and present an independent scholarly project for review and approval. A two-semester sequence allows students to develop their independent scholarly work from start to finish within a structured context. Students are required to take this two-semester course sequentially fall/spring and with instructor's permission. Grade of B or better required. At least 21 credit hours toward the degree including SOC 510, SOC 532, SOC 533 and a grade of B or higher in SOC 532.

SOC 598 Independent Project Supervision (Variable 1-3)

Supports completion of a viable project. Students must work with an advisor to develop an acceptable project proposal, to implement that proposal, and to evaluate its result. Students will be asked to maintain on-going enrollment in project supervision by signing up for one credit each semester. A maximum of 3 credits will count for degree credit.

SOC 599 Thesis (Variable 1-3)

Supports completion of a viable thesis. Students must work with an advisor to develop an acceptable thesis proposal, to implement the thesis proposal, and to evaluate its effectiveness. Students will be asked to maintain on-going enrollment in thesis supervision by signing up for at least one credit after the first semester of enrollment. A maximum of three credits count toward the degree.

Biology**BIO 570 Pathophysiology (3)**

Identify the physiological basis of common and specific health and disease states encountered in primary care nursing practice and distinguish those processes that are ongoing in the human body that can be altered by interventions from those that cannot.

Business**BLW 570 Business Law, Ethics, and Intellectual Property Rights (3)**

Designed to provide the student with the legal environment of business transactions including court structure and procedure, contracts, sales, commercial paper, secured financing, and property transactions. Covers the ethical aspects of business with particular emphasis to intellectual property (IP) rights as they relate to technology innovation and high technology environments. The IP issues which will be addressed include copyrights, patents, trademarks, software, domain names, licenses, royalties, and business processes.

BUS 505 Multinational Economics of Technology (3)

Managerial economics is the application of economic theory and methodology to decision-making problems encountered by public and private institutions in a multinational setting and within the framework of technology innovation. Emphasis is on the identification and selection of alternative means of obtaining given objectives as efficiently as possible. It is a special branch of economics bridging the gap between abstract theory and managerial practice. Areas of study will include managerial economics and economic theory, statistical and econometric applications, demand, supply, markets, costs, profits and government and business.

BUS 591 Independent Study (3)

Extensive study and research on a particular topic of student interest under the supervision of a faculty member. The student is required to submit a written proposal which includes a description of the project, its duration, educational goals, method of evaluation and number of credits to be earned.

BUS 595 MBA Internship (3)

Internship placements provide students with a field experience related to their academic preparation enabling them to apply classroom instruction to the work site. Students are placed with an organization related to their major and specific area of interest to work along with, and be proctored by, experienced professionals. These are opportunities that cannot be duplicated in the classroom environment and provide an excellent transition into the field.

Computer/Information Science**CSC 500 Discrete Structures (3)**

This course provides the mathematical tools which serve as a basis for the description and understanding of the major components of computer science. Topics include: sets, relations (binary, n-ary), relational algebra, functions, properties of relations, propositional and predicate calculus. The presentation of this and other material is based on its utility for describing and investigating the objects of study in computer science, e.g., abstract models of machines (finite state automata-deterministic, nondeterministic, pushdown stores-Turing Machines), of strings and languages, etc. Counting techniques, recurrence relations and algorithm analysis will be studied-algebraic structures (monoids, groups, etc.; Boolean Algebras, lattices) and mapping between them; operations on n-ary relations suitable for database design; fundamentals of the study of switching circuits; proof techniques and an introduction to proving program correctness, elements of graph theory; and an introduction to the study of fuzzy sets and systems. Cross listed with MAT 413.

CSC 501 Continuous Methods in Computer Science (3)

Basic techniques of numerical computation. Topics include: computer arithmetic and error control, solution of non-linear algebraic equations including some non-linear optimization, polynomial interpolations including splines, curve fitting, integration, and an introduction to differential equations. Emphasis will be on non-formal settings with a view toward applications.

CSC 502 Machine Structures (3)

Computers as a hierarchy of levels. Coverage includes digital logic, microprogramming, and conventional machine levels. Emphasis is given to those aspects of computer hardware that affect programming. Prerequisite: Permission of instructor.

CSC 503 Data Structures (3)

A study of data structures through programming assignments and then in a language independent setting. The levels of data description and their roles in data structure design are examined. Prerequisite: Permission of instructor.

CSC 504 Computational Methods in Linear Algebra (3)

Computational aspects of linear algebra including linear optimization models are explored. Topics include different algorithms for solution of sets of linear algebraic equations, the eigen-value problems, linear programming, clustering techniques, and software requirements. Prerequisite: Permission of instructor. Cross listed with CS 421.

CSC 507 Data Analysis

Selection and implementation of research strategies, including selection and application of proper statistical techniques using a personal computer as a research and decision-making tool. Students will attain proficiency in the use of a commercial statistical analysis package in the solution of quantitative research problems. Designed to support graduate programs in nursing administration and telecommunications; not intended for computer science graduate students.

CSC 511 Formal Methods in Programming (3)

Formalisms for program expression; data and control abstractions and their interrelation are considered. Advanced control constructs including backtracking and nondeterminism, concurrent programming, the effects of formal methods for program development. Major approaches and techniques for proving programs correct are described. Prerequisite: CSC 500; CSC 503; coursework in high-level languages.

CSC 512 Theory of Programming Languages (3)

A formal treatment of both programming languages (translation and compiler design concepts, formal semantics) and programming concepts; theoretical aspects of topics such as parsing and translation specifications

presented along with those based on consideration of programs as machine independent entities. Prerequisites: Discrete Structures; Data Structures; coursework in two high-level languages.

CSC 513 Compiler Construction (3)

An introduction to the major methods used in compiler implementation. The parsing methods of LL(k) and LR(k) are covered, as well as finite state methods of lexical analysis, symbol table construction, internal forms for a program, run time storage management for block structured languages, and an introduction to code optimization. Prerequisites: Discrete Structures and CSC 531.

CSC 515 Object-Oriented Software Development (3)

An exposition of current object-oriented software design methodologies. Topics covered include object modeling, component protocols, interaction and visibility graphs, class design and inheritance graphs, data dictionary design, object persistence, exception handling, application frameworks and design patterns. These general concepts are illustrated with examples from currently practice methods such as Booch, OMT and Fusion. General software engineering principles, including reusability, are also discussed. Prerequisites: CSC 500 and CSC 503, or equivalent.

CSC 516 Functional Software Development (3)

An exposition of the fundamental principles underlying the applicative programming paradigm. Topics covered include lambda and general calculi, techniques of functional programming, types in functional languages, correctness of functional programs, and parallelism. A survey of major functional languages is also provided, along with representative applications. Prerequisites: CSC 500 and CSC 503, or equivalent.

CSC 517 Software Engineering (3)

Techniques, tools, environments, and formal methods for software specification and design; verification of design correctness. Proofs of correctness; test planning; static and dynamic testing; symbolic execution; automated testing; verification and validation over the software life cycle; software metrics; software maintenance. Creation, analysis, and maintenance of architectures for software systems. Basic principles, patterns, and techniques. Quality attributes of the architecture are used to make a quantitative analysis. Prerequisite: A course in Data Structures or equivalent.

CSC 521 Analytical Models for Operating Systems (3)

Review of major concept areas of operating systems principles, including networks of operating system modules, pipelining, and parallelism; development of approaches and examination of the major models that have been used to study operating systems and the computer systems which they manage. Introduction to the fundamentals of queueing theory; Petri nets, dataflow diagrams, and other models of parallel behavior will be studied. Prerequisites: Discrete Structures, Probability and Statistics, Linear Algebra, Calculus.

CSC 522 Computer Networks and Distributed Processing (3)

A study of networks of interacting computers, including basic network topologies, equipment configurations, and local networks. The problems, rationales, and possible solutions for both distributed processing and distributed databases will be examined. Major national and international protocols will be presented. Prerequisite: Discrete Structures.

CSC 523 Parallel Computing & Computers (3)

Algorithms and programming for parallel programming environments. Application to several architectures, including: virtual parallel environments; tightly and loosely coupled multiprocessors; pipelined and array processors.

CSC 524 Real Time Systems (3)

An introduction to the problems, concepts, and techniques involved in computer systems which must interface with external devices. These include process control systems, computer systems embedded within aircraft or automobiles, and graphic systems. Areas will include data acquisition, analog-digital conversion, digital signal processing, and operating systems software for these systems. Prerequisites: Calculus, Linear Algebra.

CSC 525 Distributed Systems (3)

This course concerns distributed multiprocessor systems in their fullest scope. It considers both the functional and analytical structures of specialized processors performing portions of the same task, nonspecialized processors

with limited number of states sharing a common memory, and multicomputers geographically distributed but linked through a communications network. It provides a foundation to evaluate the economics and feasibility of distributed systems. Prerequisite: CSC 522.

CSC 531 Automata, Computability and Formal Languages (3)

The stress in this course is on formal models of computation and the development of students' skills in utilizing rigorous concepts and definitions in computing environments to analyze broad classes of problems situations. Classical concepts from theoretical computer science (such as state minimization, formal languages and their acceptors, and the theory of computable functions) will be reviewed and /or developed. Prerequisite: Discrete Structures.

CSC 532 Applied Combinatorics and Graph Theory (3)

A study of combinatorial and graphical techniques for complexity analysis including, generating functions, recurrence relations, Polya's theory of counting, planar directed and undirected graphs, and NP-complete problems. Applications of the techniques to analysis of algorithms in graph theory, and sorting and searching. Prerequisite: Discrete Structures.

CSC 533 Theory of Computation (3)

A survey of formal models for computation, providing the basis for a rigorous understanding of the capacities and the limitations of computing devices. Includes Turing Machines, partial recursive functions, recursive and recursively enumerable sets, the recursion theorem, abstract complexity theory, program schemes, and concrete complexity. Prerequisites: Discrete Structures, CSC 531 co-requisite.

CSC 534 Combinatorial Optimization (3)

A study of the class of algorithms for optimization of combinatorial structures. Complexity of problems such as linear programming and the traveling salesman problem. NP-completeness, approximation algorithms, worst-case and probabilistic analysis of algorithms, and local search. Prerequisite: Discrete Structures.

CSC 535 Error Correcting Codes (3)

An introduction to coding for reliable data storage and transmission. Topics include linear, BCH, Cyclic, Reed-Mueller, and Reed-Justensen codes; dual codes and their weight distribution; encoding and decoding algorithms. Prerequisites: Discrete Structures, Linear Algebra.

CSC 541 Information Storage and Access (3)

Review of database and database management concepts. Advanced data structures, file structures, databases, and processing systems for access and maintenance. For explicitly structured data, interactions among these structures, accessing patterns, and design of processing/access systems. Data administration processing system life cycle, system security. Prerequisite: Discrete Structures.

CSC 542 Information Systems Design (3)

Introduction to the formalization of the information systems design process. Concepts and theories relating to module design, module coupling, and module strength with emphasis on techniques for reducing a system's complexity. The course is intended to be especially useful for those working in a technically advanced information systems environment. Prerequisite: CSC 551.

CSC 543 Distributed Database Systems (3)

A consideration of the problems and opportunities inherent in distributed databases on a network computer system. Includes file allocation, directory systems, deadlock detection and prevention, synchronization, query optimization, and fault tolerance. Prerequisites: Discrete Structures, CSC 522, CSC 541 co-requisite.

CSC 544 Computer Graphics (3)

An introduction to modeling and rendering used in 3D computer generated imaging. Topics include: animation; parallel and perspective projections; geometric and viewing transformations; bicubic spline surfaces; color and shading models; hidden surface removal, and ray tracing. Prerequisite: Linear Algebra.

CSC 545 Logic Programming (3)

A study of the syntax, the declarative and procedural semantics of logic programs and an introduction to logic programming using the language PROLOG. Prerequisite: Discrete Structures.

CSC 546 Multimedia Information Processing (3)

Designed to explore current research issues related to multimedia information processing and management. Students will learn the conceptual bases of dealing with data/information and semi-structured data management. Major topics may include (but are not limited to) information retrieval models, video processing techniques for content analysis, pattern analysis techniques related to information retrieval, query formation and intelligent query processing. Successful completion of the course will help students to do research in the emerging areas of multimedia information processing. Prerequisites: Linear algebra and programming skill in C++, JAVA, C, or MATLAB.

CSC 551 Introduction to Systems Theory (3)

This course develops a conceptual basis and techniques for the study of systems and system properties useful in all areas of computer science. Some of the properties covered are: behavior, state, dynamics, organization, structure, hierarchy, feedback regulation and control, complexity, information, communication, and performance. The course also develops a number of examples and emphasizes the ability to use the abstract systems concepts to model and study information processing systems. Prerequisite: Discrete Structures.

CSC 552 Introduction to Information Theory (3)

Basic results of information theory with application to storage, compression, and transmission of data; entropy and entropy-based measures. Block and variable length codes, noiseless and noisy channels, channel capacity. Real and computer-simulated data studies to illustrate problems of statistical characterization of sources and channels. Prerequisites: Probability and Statistics, Linear Algebra, Calculus, Discrete Structures.

CSC 553 Data Security (3)

Theories and techniques for encrypting and decrypting stored and transmitted data. Topics include classical cryptographic methods, stream and block ciphers, public key systems, the Data Encryption Standard, automata-theoretic and shift-register models of security systems, analog security systems. Prerequisite: Discrete Structures.

CSC 554 Modeling and Simulation (3)

Discrete and continuous techniques for modeling and simulating complex systems. Model formulation; class of models; statistical simulation; simulation languages; model-based simulation; model stability, verification and interpretation; and decision support systems. Prerequisites: Probability and Statistics, Linear Algebra.

CSC 555 Models and Metrics for System Performance Evaluation (3)

Issues involved in developing quantitative indices of merit assessment. General framework and principles for systems evaluation; study of appropriate metrics for software systems, software development cycle, hardware-software complexes, command and control systems. Prerequisites: Probability and Statistics, CSC 551.

CSC 556 Pattern Recognition and Image Processing (3)

Design of automated and interactive classification systems. Feature extraction methods, linguistic and relational representation of objects, inductive inference, maximum likelihood decisions; measures of quality; transform methods, fast algorithms, image operations such as enhancement, smoothing, sharpening, windowing, filtering. Prerequisites: Discrete Structures, Linear Algebra, CSC 552.

CSC 557 Artificial Intelligence (3)

Survey of basic concepts and techniques of artificial intelligence. Knowledge representation, constraints and capabilities of different notational systems; search strategies; problem representation and problem solving methods; expert systems. Applications and illustrations from medicine, science, robotics, computer vision. Prerequisite: Discrete Structures.

CSC 558 Operations Research (3)

An introduction to the theory of linear programming, network analysis, dynamic programming and integer programming with emphasis on computer implementation. Prerequisites: Linear Algebra, Discrete Structures.

CSC 559 Fuzzy Sets and Systems (3)

A study of uncertainty, vagueness, and inexactness. This course presents: 1) a historical perspective; 2) fundamental principles of fuzzy logic, an extension to two-valued logic, and fuzzy systems theory; 3) application areas for uncertainty theory.

CSC 580 Computer and Robotic Vision (3)

This course is designed to give the student an insight into the intrinsic image information and the internal model of vision systems. Classification of objects is performed by extracting linear curves and regions in images, using boundary information, texture analysis and 3D scene analysis. Geometric and relationship structures involving complex symbolic descriptions of image and world structures are studied and various applications are introduced. Cross-listed with MST 580.

CSC 581 Seminar in Computer Science (3)

Students must choose from a list of topics and explore the literature, make formal presentations, and submit a final report on the topics. Prerequisites: Advanced graduate standing and permission of instructor.

CSC 585 Special Topics (variable credit)

Topics will vary from semester to semester. In-depth development of topics reflecting current research areas of faculty. Example topics: remote sensing, cartographic systems, models of the brain, modeling of sociotechnical systems, adaptive programming, optimization models and methods, decision theory and decision support systems, mathematical systems theory, fuzzy systems and fuzzy programming, high-level computer architecture, legal issues in computing.

CSC 591 Independent Study (Variable 1-3)**CSC 598 Project (3)****CSC 599 Thesis (Variable 1-6)****CSC 600 Colloquia in Computer Science (3)**

Speakers from fields in computing and its applications present their current research activities and findings. Students are required to attend a designed number of colloquia each semester and to write reaction papers to those presentations in areas of their interest. May be taken repeatedly, but it does not count toward the 33 credit hour requirement for the M.S. degree.

Continuous Registration**CMT 600 Continuous Registration (1)**

Maintaining continuous registration is a requirement for all graduate degrees. Students who have completed most course requirements but are finishing projects, capstone experiences, thesis or are satisfying Incomplete or In-Progress grades must register to maintain continuous matriculation. Course may be taken up to 6 semesters at which time it is expected that all program requirements will have been met. Credit is not used toward program completion requirements. Only S/U grades are awarded for this course.

Finance**FIN 525 Financial Management Problems (3)**

Provides the student with in-depth experience with the subject of Business and Corporation Finance for their future development as practicing executives. Students solve cases and problems faced by financial managers in the real world, that focus on major financial decisions and such current issues as corporate governance, securities issuance, globalization, privatization, financial analysis and planning, capital budgeting, capital structure, cost of capital, valuation, dividend policy, short/long term financing, financial markets, firm performance, and corporate restructuring. Prerequisites: FIN 302/FIN 502 or equivalent.

FIN 532 Investment Strategy (3)

Introduces current technological trends market microstructure, and strategies for investment management in the financial market. Topics include (1) stock/securities market structure, (2) risk-return tradeoffs on instruments, (3) auction, negotiation, online trading mechanisms, (4) mutual fund investments, (5) asset pricing and valuation theory, (6) security/industry/company analysis, (7) stock market/equity/technical/financial statement analysis, (8) capital market theory, and (9) combining stocks with other alternative investments, and (10) portfolio management. Prerequisite: FIN 525.

FIN 685 Seminar in Accounting & Finance (3)

An integrating experience to apply the varied skills and knowledge accumulated through the required course work to make the student competitive in capital markets. Special emphasis will be upon mastery of body of accounting and financial knowledge including significant current development on the economic and financial scene. Students acquire greater

understanding of global capital markets, demonstrate the ability to use the tools and techniques of accounting and investment analysis in the valuation of assets, and provide a synthesis of all previous related course work. Prerequisites: ACC 520 and FIN 525.

Health Information Management

HIM 501 Health Care Informatics (3)

The theoretical basis of health care informatics and health information systems is presented and the use of technology to deliver health care is explored. Study of the impact of informatics on the socio-cultural environment of health care and the infrastructure to support health care informatics is a primary focus.

Health Services Administration

HSM 500 Health Care Systems (3)

Health care delivery in the United States is a dynamic, evolving and extremely complex system comprised of myriad providers and payers. The system is further complicated by significant government involvement in both delivery and payment. It is also important for the health professional to understand the biostatistics that measure a population's health; and the utilization statistics that measure its use of health care. This course will address the multiple components of the health care delivery system, the rationale for its' patterns and practices and the basic statistics necessary to access and measure its utilization.

HSM 501 Health Policy (3)

Addresses several major health policy issues confronting public and private policy makers. It is multidisciplinary in its approach in that the analysis incorporates economic, managerial, financial, ethical, demographic, and political perspectives of health policy. Students select, analyze and resolve a public policy problem; lead discussions on policy problems in cases and determine how they will be 'policy competent' in their chosen field upon course completion.

HSM 505 Health Economics (3)

Uses an economic framework to examine major components of the health care system. Topics covered include the principles of microeconomics and regression analysis, the production of health, the demand for medical care (consumer behavior), the theory of health insurance, the market for physician services, and the market for hospital services. Students will complete a major research paper on a health economics-related topic.

HSM 509 Legal Issues in Health Care (3)

Exploration of legal issues that affect the operation of health care facilities. Topics covered include medical malpractice, licensure, staff privileges, federal/state regulatory mechanisms, health organization liability, risk management, decisions at the end of life and obligations to patients and the community. Preventative measures will be examined that minimize risks to health, safety, and the environment. A special emphasis will be on legal issues that improve operational performance and regulatory compliance.

HSM 510 Alternative Methods of Health Care Delivery (3)

Alternative Methods of Health Care Delivery provides a framework for understanding the meaning of the term "alternative health care delivery" and explores applicable methods from several health care arenas including the evolution of managed care, the expansion of alternative and complementary medicine modalities into mainstream medicine and the international health care scene. The course presents theories, principles and methods for investigating, evaluating and conducting business using the discussed methods of health care delivery. It is designed to introduce students as current and future health care administrators to the concepts and dynamics of alternative health care delivery methods as a basis for monitoring organizational, legislative and reimbursement changes – be it in acute care, long term care, physician practice management or some similar field. Prerequisite: HSM 500.

HSM 522 Nursing Home Administration (3)

Aging of the United States population has expanded the need for long-term care services. This course will examine the nursing home as an integral part of the long-term continuum. This course is intended to provide the foundation necessary for students preparing for an internship and subsequent careers as nursing home administrator.

HSM 525 Health Care Marketing/Strategic Planning (3)

Decision-making, relative to facility planning and financial integrity, has become extremely complex in the health care field. Health care marketing is one of the tools available to the health professional that provides guidance and support to these efforts. This course will address many of the planning and marketing variables that should be addressed, as well as how to coordinate these activities. Prerequisites: HSM 500 and HSM 535.

HSM 531 Financial Management for Ambulatory Care Facilities (3)

A course designed to assist the health care executive understand various financial issues in dealing with managed care organizations. Specifically, the course will focus on financial reimbursement issues which executives must understand to provide strategic financial and operational direction to their organizations, risk shifting via capitation methodologies, risk contracting issues, and various cost accounting methodologies to adequately prepare for negotiating managed care contracts.

HSM 535 Financial Management for Health Care Organizations (3)

Students will acquire a working knowledge of cash flow projections, budgeting, cost accounting and control evaluation techniques for not-for-profit organizations. Case study analysis and presentations will be the primary instructional methods. Students will learn to use an electronic spreadsheet to assist in analyzing case studies. An extensive accounting case analysis problem involving a not-for-profit entity will be assigned. Students will be required to submit an in-depth written report, which will reflect this organization's financial viability. Prerequisites: HSM 500 and ACC 201 or its equivalent.

HSM 592 Special Topics in Health Services Management (Variable 1-3)

A study of a selected topic of interest to students interested in the field of health care administration, which will enhance the student's ability to work in the health care field. Topics may be repeated in future semesters or may change from semester to semester. Grading method will vary depending upon topic.

HSM 680 Research Methods for Health Services Administration (3)

Covers conceptualization of health services research, statistical modeling, sampling, techniques, research design, data collection, literature review, and ethical issues in health services research. Students will complete a research design proposal which addresses a health services research problem. Prerequisite: MGS 511 or MBA statistics course.

HSM 685 Health Services Administration Environments and Strategies (3)

Provides students with the theoretical framework and background to analyze the environment in which health care organizations operate and to determine how organizations in the health care sector develop and implement strategies to achieve short term and long term goals. Strategic management theory is used to integrate knowledge across functional areas of management. Students complete a major strategic management project for a health care organization in the community. Prerequisites: HSM 501 and HSM 525 and HSM 535; minimum cumulative GPA of 3.0; or permission of instructor. (Note: Students must obtain a grade of B or better in this course to be eligible to graduate. The course may only be repeated once.)

HSM 692 Internship (Variable 3-9)

Internship placements provide students with a field experience related to their academic preparation enabling them to apply classroom instruction to the work site. Students are placed with an organization related to their major and specific area of interest to work along with, and be proctored by experienced professionals. These are opportunities that cannot be duplicated in the classroom environment and provide an excellent transition into the field. Prerequisite: Permission of Program Director.

HSM 699 Thesis in Health Services Administration (3)

The thesis option in health services administration requires that a student integrate knowledge and expertise developed in the specialized core curriculum. Students will develop a paper that addresses a convincing research question in the health care field, and is supported with primary and/or secondary data. Topics might include improving the delivery health care services to a subgroup of the population, or advancing health services delivery in an organization or a geographic region. Prerequisite: permission of instructor and the completion of statistics and research methods coursework.

Human Resource Management

HRM 518 Human Resource Management (3)

Manage human resources more effectively improving analysis and planning. Focus on the development of state-of-the-art systems which support basic business objectives, as well as foster good working relations between employees and managers.

HRM 615 Labor Relations (3)

A complete understanding of the history and development of labor management relations is critical for managers in both union and non-union organizations. Places special emphasis on the behavioral and economic underpinnings which set the stage for labor management relations in today's work settings. The structure, process and institutional framework within which these relations occur are also studied. Prerequisite: HRM 518.

HRM 620 Compensation (3)

Often referred to as one of the most important elements of the work place environment, the subject of compensation is examined in this course across a broad spectrum. Current theories, models and concepts are presented and analyzed in an effort to provide the basis for development of an equitable and effective pay system. Key topics included are motivation theory, performance appraisal, legal bases for pay and internal and external pay equity. Prerequisite: HRM 518. Cross listed with MGT 320.

HRM 650 Human Resource Information Systems (3)

The need to integrate human resource management with the overall stream of strategic decisions and techniques demands the support of a current and responsive human resource information system. Although the course recognizes that human resource information systems can run the gamut from paper and pencil manual systems to the most sophisticated mainframe systems, the emphasis is on microcomputer applications to which the student will be able to relate based on the comprehensive course curriculum. Concepts developed in the course focus on bridging the needs of the most senior executives in an organization with those of the operating personnel manager. Prerequisite: HRM 518.

Information Design & Technology

IDT 501 Information Theory (3)

Examines the role of theory in effective communication and information design. Explores theoretical approaches and practices from several disciplines (communication, cognitive science, instructional design). Applies front-end analysis and information design strategies and practices. Students work on communication and design problems from instructional environments, business, or government, and present their findings orally, visually, and in writing.

IDT 503 Human Factors in Information Design (3)

Provides students with theoretical frameworks and background needed to analyze the relationship between computer environments and the people who use them. The factors that relate to the design and use of instructional media will be considered. Factors as diverse as ergonomics, software screen design, readability, usability, web testing, and user-centered and contextual analysis will be considered to optimize the effectiveness of information design and instructional media. Students will develop and build an interface designed to carry out a sequence of well-defined tasks based on user/system requirements and project methodology guidelines and research information.

IDT 505 Computing Environments (3)

An introduction to computer operating systems and computer networks for communication specialists. Contemporary operating systems will be examined including installation, the user interface, simple troubleshooting, networking and internetworking. Network design, architectures, administration, and support will be considered within the context of a variety of professional environments.

IDT 507 Information Technologies (3)

Assesses the development and social impact of information and communication technologies. Focuses on emerging technologies of the 21st century and the convergence of traditional with new media. Examines the technical features and characteristics of information and communication technologies, and assesses the evidence for significant social impact associated with their diffusion.

IDT 531 Technical Editing (3)

Focuses on editing in the context of rhetorical theory, analyzing the strategies and purposes of editing for various documents and audiences. Emphasis falls on the editor as supervisor and manager who must understand the design and production process of complete documents. A major component of the course addresses the skills and issues of editing for on-line communication and publication. Cross listed with COM 310.

IDT 534 Information Design (3)

Explores the theoretical and practical use of graphics as a form of visual communication. Topics include visual perception and forms, design theory, chart and graph theory, relationships between formatted text and graphics, and color and design concepts. Students will apply theory to the design of visuals in communication.

IDT 535 Typographic Design and Communication (3)

Investigates typographic variables and methods of organization. Verbal, visual and vocal message-making is explored through the marriage of meaning and form. This facilitates the development of an aesthetic vocabulary combined with an increased sensitivity to language. Issues of hierarchy, readability, and syntax will be examined through a series of projects. The assignments range from realistic, client-based problems to highly abstract, heuristic exercises.

IDT 536 Graphic Design (3)

An advanced exploration of the theoretical and practical application of consumer, trade and public service graphic design. Students will study the contemporary history and evolution of advertising's use of graphics as a means of visual communication. Students will create at least seven promotional pieces with emphasis on presentation and professional work. An introduction to the theory of computer-based imaging and the exploration of a variety of hands-on techniques pertaining to design creation, manipulation, and construction. Students should have a general understanding of Adobe Photoshop, Adobe Illustrator, and Adobe In Design.

IDT 541 Instructional Design (3)

Students will learn about the fundamentals of instructional design, its variations and impact on learning outcomes. Several contemporary ID models will be examined. Students will ultimately adopt a personal approach to instructional design.

IDT 545 Information Technology and Organizational Change (3)

Examines the theoretical framework of change theory and research in various fields and issues facing individuals or institutions engaged in change. Students will discuss the elements of the change process, the roles of participants in the process and implications for change agents or agencies. Students will apply knowledge of diffusion and diffusion research to a planned, ongoing or past diffusion effort, preparing recommendations or post-mortem analysis of the process. Desirability and unintended consequences of innovations will also be discussed. Non-matriculated students need permission of dean to enroll.

IDT 551 Evaluating Technology (3)

Addresses issues that information technology professionals face in selecting technology (both hardware and software) to meet desired goals. Topics include technology classification, evaluation criteria and software and hardware considerations, including the Internet and intranets. Will examine how information is shaped and modified by the technologies that are selected.

IDT 553 Principles of Design for Desktop and Electronic Publishing (3)

An advanced consideration of communication theory as it relates to visual language and the ways designers use and readers process such information. Analyzes the strengths and limits of various media and applies design principles applicable to each medium and to the integration of visuals with language and sound. Students analyze and evaluate selected readings and examples and use publishing techniques to design and produce printed material and they design a Web site.

IDT 554 Advanced Web Development and Design (3)

Considers advanced aspects of web system design and development. Issues covered include server-site application development, client-side application development, and web graphics. The user-machine interaction will be considered with a focus on user interface design principles, guidelines and standards. The advantages and disadvantages of various graphical user interfaces and object-oriented user interfaces will be discussed.

IDT 555 Ethical and Legal Issues of the Information Age (3)

Analyzes ethical and legal issues related to information technologies. Examines the ways that technology challenges traditional ethical and legal concepts and raises old issues in new ways. Topics reflect recent patterns and developments, with particular emphasis on how technological developments shape, and are shaped by, the economic and political structure and organization of communication systems. Examines the role ethical and legal factors play in the day-to-day work of designers, producers and consumers using a series of contemporary issues as case studies.

IDT 585 Seminar in Emerging Information Technologies (3)

Takes an in-depth look at emerging technologies including but not limited to multimedia, distance learning, networking and the Internet. Reviews technical, social, economic and political factors associated with new and emerging information technologies. Examines trends in the development and diffusion of emerging information technologies. Explores, through practical application, use of emerging information technologies in educational settings.

IDT 590 Selected Topics in Information Design and Technology (3)

Provides students with the opportunity to investigate selected topics in information and design technology. Topics will typically illustrate the application of theory and research. Students may receive credit in a future semester for different topic areas.

IDT 591 Independent Study (Variable 1-3)**IDT 592 Internship (3)**

Application of theory to real-life situations through placement in an appropriate work-related setting. Requires completion of assigned projects under the joint supervision of a faculty member and a professional supervisor. Prerequisite: Faculty will determine on a case-by-case basis if student is adequately prepared for an internship. The student will be required to make a proposal for an internship and IDT faculty will review each request.

IDT 599 Thesis/Project (3)

Students complete an in-depth quantitative or qualitative empirical study of a topic chosen by the student from the area of information design and technology. Students will work individually on projects and will act as a resource for other students working on their thesis, reviewing their work, offering comments and suggestions, and sharing ideas. At the completion of the course, students will present their final paper to the college community. This is a capstone course for students who are close to graduation in Information Design and Technology. Students must have already taken or are currently taking a research methods course. They should take the course after taking all core courses. Permission of the instructor is required for admission to the class.

Management**MGT 607 Organizational and Management Theory (3)**

Analyze major schools of management thought: traditional, behavioral, and contingency. Explore managerial roles, power styles, and conflict with respect to contemporary organizational systems through lecture, discussion, case analysis, and experiential exercises.

Management Information Systems**MIS 515 Management Information Systems (3)**

Strategic uses of information that affect customers, markets, and products are becoming common today. Information is used to manage organizations, carry out strategy, control operations, and assist in decision-making. As a result, information is a resource with value equal to that of traditional assets such as inventory, capital, and human skills. In this course students will learn to manage and use information systems and technology. The MIS course provides concepts, methods, and techniques to identify an organization's information needs and to employ systems to meet these needs. The course introduces business students to topics such as information systems, database management, information technology, expert systems, and decision support systems. [Formally BUS 515]

MIS 615 E-Commerce and Entrepreneurship (3)

E-Commerce provides entrepreneurs with a vast, evolving medium for engaging in all phases of business activity. New business opportunities are evolving with the introduction of new technological developments. Students will study such evolving trends, learn about existing standards and methods

to analyze web-based activity, and develop Web business strategies for launching their own business activities on the Internet.

Management Science**MGS 511 Quantitative Business Analysis (3)**

This survey course addresses the study of the scientific method as applied to management decisions. The forepart of this course addresses the development of basic statistics up to hypothesis testing. Topics coverage also includes (1) bivariate regression analysis, (2) multiple regression analysis, (3) PERT and CPM, (4) linear programming (graphic method only), (5) decision making under uncertainty (including maxi-max, mini-max, and maxi-min techniques) and (6) the basic elements of forecasting (including the classical time series model).

Marketing**MKT 505 Marketing Management (3)**

Emphasizes a managerial approach in marketing decision making in the modern technology environment. Topics in this course include the marketing mix, marketing problem solving through case analysis, marketing strategy concepts and tools, and development of a strategic marketing plan. Students learn these topics and many other relative subjects through teamwork and course projects.

MKT 510 Marketing Survey Design and Data Analysis (3)

Provide prospective managers with an understanding of marketing survey procedures and data analysis techniques. Various quantitative and strategic approaches in marketing are introduced and applied in case studies and problem solving. Topics of this course include: formulation of marketing survey design, comparison of survey designs, preparation of marketing data, quantitative techniques of marketing decision analysis, managerial aspects of coordinating survey projects, and the implementation of derived strategy. Prerequisite: MKT 505.

MKT 652 Sales Management (3)

Presents the techniques for delivery of effective selling in business-to-business situations and explores the components necessary to achieve effective management of the sales function. Included within this presentation is exploration of the sales function, the duties and necessary skill set for effective B2B selling, training, and selection decisions in sales management, the role of negotiation and forecasting in sales management, and ethical and legal issues confronted in the B2B sales environment. Prerequisite: MKT 505.

MKT 654 Services Marketing Management (3)

Introduces students to the challenges and innovative strategies that are ubiquitous to the marketing of services. Topics covered in this course include commonalities and differences between goods and services, the critical role of customer contact employees in service delivery, customer relationship management, the design and execution of the service delivery process, measurement and management of service outcomes, and the emerging roles of globalization and technology in service provision. Prerequisite: MKT 505.

Mathematics**MAT 500 Topics in Applied Mathematics (3)**

This course will introduce students to several topics in the area of mathematical methods. Topics includes: complex numbers, determinants and matrices, ordinary differential equations, Fourier series, partial differentiation, multiple integrals and vector analysis. Prerequisite: Calculus II (MAT 122) or equivalent.

MAT 530 Number Theory and Its Applications (3)

Introductory course in Number Theory that will introduce students to the basic concepts as well as some modern applications. Topics include: prime numbers, Greatest Common Divisors, The Euclidean Algorithm, congruences, Fermat's Little Theorem, primality testing, etc. Applications of Number theory: cryptography, pseudorandom numbers, etc. Prerequisites: MAT 380 or MAT 381 or MAT 413 or permission of instructor. Cross listed with MAT 430.

Nursing

NUR 500 Theoretical Foundations for Nursing Practice (3)

Historical influences that have impacted upon the development of nursing are explored. Theory-based nursing is emphasized as students discuss and critically reflect upon the relevance and significance of nursing as an art and science. Philosophical views of selected nurse theorists and their theories are critically examined for application to nursing practice, administration, and research. Nursing theory within the paradigm of people, health, nursing, environment, are applied to the practice of nursing and promotion of health, research, moral reasoning, and standards of professional nursing. Personal philosophies of nursing are explored and drawn from these theories as students critically reflect upon their personal values and transforming practice in the advanced practice role of professional nursing.

NUR 501 Health Policy (3)

Federal and state governments, as well as many health care organizations, engage in ongoing and significant decision-making which will determine the course of health care. The purpose of this course is to present the process, intent, and consequences of policy. Past, present, and potential policy decisions will be studied.

NUR 503 Advanced Nursing, Health Policy, and the Health System (3)

Students learn to evaluate and integrate power, management, and leadership theories in the implementation of advanced nursing practice for culturally diverse communities, families, and individuals within the health care delivery system. Essential tools to facilitate the development of strategies to impact on health care policies and quality management are discussed. The historical and current role of the caring and learned profession of nursing is explored. Trends in the macrosystem are critically evaluated for their political and social impact on health care delivery systems and the environment. Political implications and the action of the advanced nurse as clinician, administrator, leader, manager, change agent, and consultant are analyzed and researched. The central focus is the development of advanced professional practice.

NUR 504A Advancing Leadership in Health Care (4)

Designed for the accelerated RN to BS/MS programs of study, students learn to evaluate and integrate power, management, and leadership theories in the implementation of advanced nursing practice for culturally diverse communities, families, and individuals within the microsystem of the healthcare institution and the macrosystem of health care delivery. Essential tools to facilitate the development of strategies to impact on health care policies and quality management are discussed. The historical and current role of the caring and learned profession of nursing is explored. System trends are critically evaluated for their political and social impact on health care delivery systems and the environment. Political implications and the action of the advanced nurse as clinician, administrator, leader, manager, change agent, and consultant are analyzed and researched. The central focus is the development of advanced professional practice. Prerequisites: Matriculated into the Accelerated BS/MS program; completion of 300 and 400 level nursing courses.

NUR 514 Health Assessment (2)

Complete health assessment is explored through seminar discussion and laboratory practice. Content focuses on the acquisition of assessment skills of the healthy and ill individual. Prerequisite: Undergraduate health assessment course; registered nurse. (Note: this course will act as a refresher course for those registered nurses whose undergraduate health assessment course was greater than five years ago.)

NUR 522 Financial Management for Nurses (3)*

Utilizing basic principles of health care economics for fiscal management and budgeting, the nurse administration student examines budgets and budgeting, reimbursement and regulation, strategic planning and monitoring, forecasting and decision making, management information systems, and business plans. Utilization of these principles are then applied to the development of patient service financial plan and/or budget. Pre/Co-Requisites: Microsoft Excel.

NUR 524 Program Planning and Development (2)

Program planning provides a concise, practical approach to planning, managing, and evaluating health programs within an acute or community based health care delivery system. A variety of theoretical and health system

models are applied to program planning. The program planning process is presented with illustrations of how this process provides fiscally sound, sustainable change in a variety of practice environments.

NUR 526 Legal and Regulatory Issues in Health Care (3)*

Legal/regulatory issues that impact the advanced professional practice of nursing administration are examined. The student explores the origins of law and the judicial system to appreciate the various legal aspects of the health care delivery system, including state codes, nurse practice acts, licensure, disciplinary bodies, civil liability, malpractice, and other relevant areas, such as ethical codes and standards of practice on nursing and health care.

NUR 531 Family Theory (2)

Family theories are explored using research from a multidisciplinary and culturally diverse approach. A variety of assessment techniques and instruments are introduced and applied to identify family health status, risks, and problems. It provides a theoretical foundation in assessment and planning for family intervention.

NUR 535 Curriculum Development in Nursing Education (3)

Curriculum development addresses the many interpretations of curriculum and curriculum design and their meaning within diverse educational settings. Intellectual traditionalist, social behaviorist, and experientialist approaches are explored as they apply to the curriculum process and learner. Modes of inquiry and domains of learning are presented as orientation models for curriculum consideration and development. Discussion of issues relevant to education and curriculum are also explored. Educational self analysis through accreditation processes and educational standards are examined as they relate to curriculum development.

NUR 541 Nursing Leadership Institute: Key Competencies in Long Term Care (3)

Management processes within nursing in long term care will be examined. The students' knowledge, skill, and disposition are developed by examining the role of the long term care nurse administrator in relation to strategies utilized for professional practice, effective leadership, critical thinking, regulatory oversight, and human resource management. Prerequisite: Permission of instructor.

NUR 545 Instructional Designs in Nursing Education (3)

Instructional designs and the application to teaching strategies are presented in this course. Individual versus team approaches are discussed. Prescriptive models such as behaviorists and objectivists; and phenomenological models such as cognitivist, constructivist, and post modern approaches are examined. Attention to technology using discovery learning with simulations and distance education through web-enhanced instruction are demonstrated and applied to student learning.

NUR 555 Clinical Pharmacology (3)

Pharmacology and therapeutics for primary, acute and long-term care patients are emphasized with the focus on the clinical application of the major classifications of drugs. Disorders, symptoms and diseases affecting people throughout the lifespan are examined from a comprehensive pharmacological management perspective. The legal parameters for prescription writing and protocols are included. Theory and research findings related to current treatment modalities and the complexities of compliance are applied.

NUR 560 Nursing Research Methods (3)

The research process for quantitative and qualitative research studies is critically examined. The methods of scientific inquiry, problem identification, use of underlying theories and conceptual methods, research design, measurement, data collection and analysis, and ethical considerations are applied to the development of a research proposal. Critical analysis of existing research studies and student reports are used to further refine the development of research skills. The significance of research findings to practice environments in health care systems, administration, and ongoing research activities are identified as they relate to evidence based practice in nursing. Critical reflection upon one's developing role as a professional in advanced practice is explored as it relates to participation and collaboration in research activities within health care systems and communities.

NUR 566 Advanced Practice Nursing Lecture (3)

Health assessment will focus on the caring and in-depth assessment expertise needed by nurse practitioners: history taking; communication; physical

and mental examination; psychological, cultural, and social assessment. Advanced assessment skills needed to develop clinical problem solving, critical reflection, and decision making will be discussed. Knowledge from the behavioral and health sciences, nursing theory, and research will be drawn upon to assist the student in formulating therapeutic interventions that will promote, maintain, or restore health for people and communities. Prerequisites: Matriculated status and undergraduate health assessment course within the past 5 years or NUR 514. Pre/Corequisites: NUR 500, BIO 570, and for family nurse practitioner majors NUR 531. Corequisite: NUR 567.

NUR 567 Advanced Practice Nursing Clinical (2)

Data about the assessment, diagnosis, management, and evaluation of common and simple problems facing client populations will be explored through clinical experiences and computer simulations. Students will master advanced assessment skills needed to develop critical reflection and decision making and will demonstrate their clinical and decision making expertise in on-campus laboratory experiences and in faculty supervised clinical experiences in communities of culturally diverse people. Prerequisite to the faculty supervised clinical experiences: current New York Registered Professional Nurse license, CPR certification, complete health clearance on file. Corequisite: NUR 566.

NUR 570 Clinical Pathophysiology (3)

Identify the physiological basis of common and specific health and disease states encountered in primary care nursing practice and distinguish those processes that are ongoing in the human body that can be altered by interventions from those that cannot. Prerequisite: Undergraduate anatomy and physiology or permission of instructor.

NUR 572 Family Health Promotion and Disease Prevention Across the Lifespan (3)

Health promotion and disease prevention concepts are applied to individual and community based interventions grounded in theories of growth and development, epidemiology, and social policies that influence the achievement of health. The promotion of health, prevention of illness and identification of the factors that influence risk education, self care and healthy lifestyle choices across the health illness continuum of individual clients and the community are emphasized. Opportunities to critically reflect on the roles of the nurse practitioner as case manager, educator and collaborator are explored to enhance the health and well being of clients and their families from a variety of social and cultural backgrounds to ensure the delivery of appropriate, individualized health care. Prerequisites: NUR 500, NUR 566, NUR 567, and BIO 570. Pre/Corequisites: NUR 555, NUR 560, NUR 531, NUR 580.

NUR 574 Adult Health Promotion and Disease Prevention Across the Lifespan (2)

Health promotion and disease prevention concepts are applied to individual and community based interventions grounded in theories of growth and development, epidemiology, and social policies that influence the achievement of health. The promotion of health, prevention of illness and identification of the factors that influence risk reduction, self care and healthy life style choices across the health illness continuum of individual clients and the community are emphasized. Opportunities to critically reflect on the roles of the nurse practitioner as case manager, educator and collaborator are explored to enhance the health and well being of clients and their families from a variety of social and cultural backgrounds to ensure the delivery of appropriate, individualized health care. Prerequisites: NUR 500, NUR 566, NUR 567, and BIO 570. Pre/Corequisites: NUR 555, NUR 560, NUR 582.

NUR 576 Foundations for Gerontological Health Promotion and Disease Prevention (3)

Health promotion and disease prevention concepts are applied to the older adult using both individual and community based interventions that are grounded in theories of growth and development, epidemiology, and social policies that influence the achievement of health. The promotion of health, prevention of illness, and identification of the factors that influence risk reduction, self care, and healthy life style choices across the health illness continuum of older adult clients and the community are emphasized. Opportunities to critically reflect on the roles of the nurse practitioner as case manager, educator and collaborator are explored to enhance the health and well being of clients and their families. Ethical and legal issues as well as social and cultural factors are explored to ensure the delivery

of appropriate, individualized health care. Prerequisites: NUR 500, NUR 566, NUR 567, BIO 570. Pre/Corequisites: NUR 555, NUR 560, NUR 531, NUR 584.

NUR 580 Beginning Level Family Clinical (2)

Clinical experience provides an opportunity to deliver primary care within a community based setting to a population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by clients in diverse health care settings. Opportunities to deliver primary care to clients provide the students with challenges to expand their knowledge and skills. The focus of this clinical is to become proficient in obtaining histories and performing physical exams in the clinical setting with minimal supervision. The information obtained needs to be accurately documented utilizing SOAP format. Clinical faculty, in association with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical setting under contract with the School of Nursing and Health Systems. The student will complete 5.5 contact hours per week per credit. Prerequisites: Current New York Registered Professional Nurse license, current CPR certification, complete health clearance on file, NUR 566 and NUR 567. Pre/Corequisites: NUR 555, NUR 560, NUR 572.

NUR 582 Beginning Level Adult Clinical (2)

Clinical experience provides an opportunity to deliver primary care within a community based setting to a population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by clients in diverse health care settings. Opportunities to deliver primary care to clients provide the students with challenges to expand their knowledge and skills. The focus of this clinical is to become proficient in obtaining histories and performing physical exams in the clinical setting with minimal supervision. The information obtained needs to be accurately documented utilizing SOAP format. Clinical faculty, in association with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical setting under contract with the School of Nursing and Health Systems. The student will complete 5.5 contact hours per week per credit. Prerequisites: Current New York Registered Professional Nurse license, current CPR certification, complete health clearance on file, NUR 566 and NUR 567. Pre/Corequisites: NUR 555, NUR 560, NUR 574.

NUR 584 Beginning Level Gerontological Clinical (2)

Clinical experience provides an opportunity to deliver primary care within a community based setting to the older adult population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by older adult clients in diverse health care settings. Opportunities to deliver primary care to clients provide the students with challenges to expand their knowledge and skills. The focus of this clinical is to become proficient in obtaining histories and performing physical exams in the clinical setting with minimal supervision. The information obtained needs to be accurately documented utilizing SOAP format. Clinical faculty, in collaboration with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical setting under contract with the School of Nursing and Health Systems. The student will complete 5.5 contact hours per week per credit. Prerequisites: NUR 566, NUR 567, current NYS RN license, current CPR certification, current complete health clearance on file in the SON&HS office. Corequisites: NUR 555, NUR 560, NUR 576.

NUR 591 Independent Study (Variable credit)

NUR 608 Health Care Systems Seminar (3)*

Administrative systems issues within the health care environment are examined. Knowledge, skill and disposition are developed by analyzing economic, regulatory, and information systems within the health care micro-systems environment. Opportunities are created to critically reflect and analyze the impact of application of health care systems on resource utilization, performance improvement, information-handling and achievement of strategic outcomes. Prerequisites: NUR 500, NUR 503 or NUR 504A, NUR 560, MGT 607, HIM 501, matriculated status, current New York Registered Professional Nurse license. Pre/Corequisites: NUR 522, NUR 526, HRM 518, CSC 507.

NUR 610 Nursing Administration Seminar (3)

Administrative issues within nursing and the health care environment are examined. Knowledge, skill, and disposition are developed by examining the role of the nurse administrator in relation to strategies utilized for advanced professional practice. Opportunities are created to critically

reflect on effective approaches necessary for effective leadership, change management, quality improvement, conflict resolution, and resource utilization in culturally diverse environments. Prerequisites: NUR 500, NUR 503/NUR 504A, NUR 560, MGT 607; matriculation status, current New York Registered Professional Nurse license. Pre/Corequisites: NUR 522, NUR 524, NUR 526, HRM 518, CSC 507.

NUR 611 Nursing Administration Internship (3)

In partnership with a nurse administrator, management and leadership principles are applied in this culminating experience. The role of the nurse administrator is assessed and analyzed in relation to professional practice, effective leadership, change management, evaluation of the quality and effectiveness of nursing practice, policy development, and resource utilization. The practicum provides the student the opportunity for critical reflection on the advanced practice role in nursing administration. Synthesis of management and leadership theoretical principles, practice guidelines, and pertinent research are emphasized. Occasions exist to demonstrate knowledge, skill, and disposition in administrative practice through the development and implementation of the practicum objectives. Within the framework of the objectives, each student designs, implements, and evaluates an administrative project. Prerequisites: Matriculated status, current New York State Professional Nurse license, current CPR certification, complete health clearance on file. Pre/Corequisite: NUR 524, NUR 608, NUR 610, NUR 624.

NUR 624 Grant Proposal Seminar (3)

Selection of potential research and project proposals are critically explored for funding. Identification of funding sources and the development of a grant proposal for submission to a potential funding agency is emphasized. Faculty facilitation and seminar provide an interactive learning environment for students to present their proposals in progress and to obtain critical reviews of their work from all participants. Focus is on the ongoing development of critical analyses skills, participation in scholarly exchanges of ideas, and research utilization within nursing administration. Prerequisites: NUR 500, NUR 560, or permission of the dean.

NUR 626 Thesis or Project (Variable 1-3)

Student has the option of implementing an approved research or project proposal for up to 3 credits. Prerequisites: NUR 500, CSC 507, NUR 560.

NUR 627 Culminating Seminar for Nurse Administrators (2)*

The synthesis of health care related theory, research and practice are the emphasis of this culminating experience. Opportunity for collaboration with peers, faculty and mentors is provided as students develop and participate in research and scholarly activities. Inquiry into scholarly works is explored to further enhance nursing knowledge, applied research in health care delivery, and professional practice. Personal values and beliefs are re-examined as the student describes one's transformed view of self and advanced practice as a maturing professional in nursing. Critical reflection of one's personal growth and commitment to ongoing professional development is examined within the context of developing professional excellence. Pre/Corequisites: NUR 611, NUR 624; Student must be within 3 credits of graduation at completion of culminating seminar.

NUR 635 Evaluation Approaches in Nursing Education (3)

A foundation for formative and summative evaluation approaches is presented in this course. The focus is on types of evaluation models that address problems, needs, and assessment plans; processes for implementing plans; outcome-based evaluation; performance assessment system; stakeholder participation; and strategic planning relevant to program and curriculum evaluation. Benchmarking, accreditation standards, and evaluation concepts are explored within the context of nursing, in-service, and education. Assessment trends and issues facing nurse educators in practice and educational settings are also examined. Prerequisites: NUR 535, NUR 545. Pre/corequisites: PSY 570.

NUR 645 Culminating Internship for Nursing Education (6)

The culminating internship provides educational experiences as a nurse educator. Students design, implement, and evaluate their teaching practicum under the guidance of a nurse educator mentor. The integration of curriculum, instructional, and evaluative theories and skills are expected throughout the experience. Focus is on critical reflection, collaboration, professional role development, and faculty responsibilities as the student engages in the advanced practice role of nurse educator. Prerequisites: NUR 500, NUR 503, NUR 560, NUR 526, NUR 535, NUR 545, HIM 501, PSY 570. Corequisites: NUR 624, NUR 635.

NUR 652 Family Primary Health Care I (3)

Theory, research, and the pathophysiology required to evaluate and manage clients across the lifespan are applied to a variety of problems. Conditions, diseases and communicable diseases of the eyes, nose, throat; head and neck; the skin, hair, nails; respiratory, hematological and immunologic systems encountered in the primary care setting are studied. The advanced roles of the nurse practitioner as case manager, educator and consultant are explored to enhance the health and well being of clients and their families from a variety of socioeconomic and cultural backgrounds. Prerequisites: NUR 572, NUR 580. Pre/Corequisites: NUR 503 or NUR 504A, and at least one (1) credit of NUR 670.

NUR 653 Adult Primary Health Care I (2)

Theory, research, and the pathophysiology required to evaluate and manage clients across the lifespan are applied to a variety of problems. Conditions, diseases and communicable diseases of the eyes, ears, nose, throat; head and neck; the skin, hair, nails; respiratory, hematological and immunologic systems encountered in the primary care setting are studied. The advanced roles of the nurse practitioner as case manager, educator and consultant are explored to enhance the health and well being of clients and their families from a variety of socioeconomic and cultural backgrounds. Prerequisites: NUR 574, NUR 582. Pre/Corequisites: NUR 503 or NUR 504A, and at least one (1) credit of NUR 672.

NUR 654 Gerontological Primary Health Care I (3)

Theory, research, and the pathophysiology required to evaluate and manage older adult clients are applied to a variety of problems. Conditions, diseases and communicable diseases of the eyes, ears, nose, throat; head and neck; the skin, hair, nails; respiratory, hematological and immunologic systems encountered in the primary care setting are studied. The advanced roles of nurse practitioner as case manager, educator and consultant are explored to enhance the health and well being of older adult clients and their families from a variety of socioeconomic and cultural backgrounds. Prerequisites: NUR 576, NUR 584. Corequisite: NUR 503/504A, and at least one (1) credit of NUR 674.

NUR 658 Women's Health Care (2)

Theory, research, and pathophysiology are applied to the evaluation and management of women who experience a variety of acute and chronic health problems throughout their lifespan. Emphasis is on health promotion and disease prevention activities in primary care settings. Basic areas explored are gynecological examinations, disease screenings, management of normal pregnancy, and care of the pregnant woman during prenatal and postpartum visits. Critical reflection will assist the student in exploring the advanced roles of case manager, educator, and consultant to enhance the health and well-being of women and their families from a variety of socioeconomic and cultural backgrounds. Prerequisites: For adult nurse practitioner majors, NUR 574, NUR 582; for family nurse practitioner majors, NUR 572, NUR 580. Pre/Corequisites: NUR 503/NUR 504A; for adult nurse practitioner majors, NUR 653 and three (3) credits of NUR 672; for family nurse practitioner majors, NUR 652 and three (3) credits of NUR 670.

NUR 659 Gynecological Health Care of the Older Adult (2)

Theory, research, and pathophysiology are applied to the evaluation and management of the women who experience a variety of acute and chronic health problems beyond their childbearing years. Emphasis is on health promotion and disease prevention activities in primary care settings. Basic areas explored are gynecological examinations, disease screenings; and the management of acute and chronic health issues of the older adult woman. Critical reflection will assist the student in exploring the advanced roles of case manager, educator, and consultant to enhance the health and well-being of women and their families from a variety of socioeconomic and cultural backgrounds. Prerequisites: NUR 576, NUR 584. Corequisite: NUR 503/504A, NUR 654 and three credits of NUR 674.

NUR 667 Gerontological Primary Health Care II (4)

The theory, research, and pathophysiology required to evaluate and manage older adult clients with a variety of cardiovascular, peripheral vascular, pulmonary, acute and chronic renal and gastrointestinal, neuromuscular and psychiatric problems, and office emergencies encountered in the primary care setting are addressed. The professional roles of the nurse practitioner as a case manager, educator, and consultant are explored to enhance the health and well being of the older adult clients and their families from a variety of socioeconomic and cultural backgrounds. Prerequisites: NUR 654 and at least one (1) credit of NUR 674. Corequisites: At least two (2) credits of NUR 674.

NUR 668 Family Primary Health Care II (4)

The theory, research and pathophysiology required to evaluate and manage clients with a variety of cardiovascular, peripheral vascular, pulmonary, acute and chronic renal and gastrointestinal, neuromuscular and psychiatric problems, and office emergencies encountered in the primary care setting are addressed. The professional roles of the nurse practitioner as a case manager, educator, and consultant are explored to enhance the health and well being of clients and their families from a variety of socioeconomic and cultural backgrounds. Prerequisites: NUR 652 and at least one (1) credit of NUR 670. Corequisites: At least two (2) credits of NUR 670.

NUR 669 Adult Primary Health Care II (3)

The theory, research, and pathophysiology required to evaluate and manage clients with a variety of cardiovascular, peripheral vascular, pulmonary, acute and chronic renal and gastrointestinal, neuromuscular and psychiatric problems, and office emergencies encountered in the primary care setting are addressed. The professional roles of the nurse practitioner as a case manager, educator, and consultant are explored to enhance the health and well being of clients and their families from a variety of socioeconomic and cultural backgrounds. Prerequisites: NUR 653 and at least one (1) credit of NUR 672. Corequisite: At least two (2) credits of NUR 672.

NUR 670 Intermediate Level Family Clinical (Variable 1-3)

Clinical experience provides an opportunity to deliver primary care within a community based setting to a population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by clients in diverse health care settings. Opportunities to deliver primary care to these clients provide the students with challenges to expand their knowledge and skills as well as to explore judgment making and priority setting abilities. Clinical faculty, in collaboration with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical settings under contract with the School of Nursing and Health Systems. This clinical will build on skills and knowledge previously obtained at the beginning level. Three credits are required for course completion. The student will complete 5.5 contact hours per week per credit. Prerequisites: Current New York Registered Professional Nurse license, current CPR certification, complete health clearance on file, NUR 580. Pre/Corequisites: NUR 503 or NUR 504A, NUR 652.

NUR 672 Intermediate Level Adult Clinical (Variable 1-3)

Clinical experience provides an opportunity to deliver primary care within a community based setting to a population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by clients in diverse health care settings. Opportunities to deliver primary care to these clients provide the students with challenges to expand their knowledge and skills as well as to explore judgment making and priority setting abilities. Clinical faculty, in collaboration with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical settings under contract with the School of Nursing and Health Systems. This clinical will build on skills and knowledge previously obtained at the beginning level. Three credits are required for course completion. The student will complete 5.5 contact hours per week per credit. Prerequisites: Current New York Registered Professional Nurse license, current CPR certification, complete health clearance on file, NUR 582. Pre/Corequisites: NUR 503 or NUR 504A, NUR 653.

NUR 674 Intermediate Level Gerontological Clinical (Variable 1-3)

Clinical experience provides an opportunity to deliver primary care within a community based setting to the older adult population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by clients in diverse health care settings. Opportunities to deliver primary care to these clients provide the students with challenges to expand their knowledge and skills as well as to explore judgment making and priority setting abilities. Clinical faculty, in collaboration with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical settings under contract with the School of Nursing and Health Systems. This clinical will build on skills and knowledge previously obtained at the beginning level. Three credits are required for course completion. The student will complete 5.5 contact hours per week per credit. Prerequisites: NUR 584, current NYS RN license, current CPR certification, complete health clearance on file in the SON&HS office. Corequisites: NUR 503/504A, NUR 654.

NUR 680 Advanced Level Family Clinical (Variable 1-4)

Clinical experience provides an opportunity to deliver primary care within a community based setting to a population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by clients in diverse health care settings. Opportunities to deliver primary care to these clients provide the students with challenges to expand their knowledge and skills as well as to explore judgment making and priority setting abilities. Clinical faculty, in collaboration with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical settings under contract with the School of Nursing and Health Systems. The graduate student must have precepted with a master's prepared nurse practitioner prior to completion of the final clinical. This clinical will build on skills and knowledge previously obtained at the beginning and intermediate levels. Four credits are required for course completion. The student will complete 5.5 contact hours per week per credit. Prerequisites: Current New York Registered Professional Nurse license, current CPR certification, complete health clearance on file, NUR 580 and three (3) credits of NUR 670. Pre/Corequisites: NUR 658, NUR 668.

NUR 682 Advanced Level Adult Clinical (Variable 1-3)

Clinical experience provides an opportunity to deliver primary care within a community based setting to a population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by clients in diverse health care settings. Opportunities to deliver primary care to these clients provide the students with challenges to expand their knowledge and skills as well as to explore judgment making and priority setting abilities. Clinical faculty, in collaboration with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical settings under contract with the School of Nursing and Health Systems. The graduate student must have precepted with a master's prepared nurse practitioner prior to completion of the final clinical. The clinical will build on skills and knowledge previously obtained at the beginning and intermediate levels. Four credits are required for course completion. The student will complete 5.5 contact hours per week per credit. Prerequisites: Current New York Registered Professional Nurse license, current CPR certification, complete health clearance on file, NUR 582 and three (3) credits of NUR 672. Pre/Corequisites: NUR 658, NUR 669.

NUR 684 Advanced Level Gerontological Clinical (Variable 1-3)

Clinical experience provides an opportunity to deliver primary care within a community based setting to the older adult population with a variety of cross-cultural health care needs. Focus is on the unique wellness lifestyle and health care problems demonstrated by older adult clients in diverse health care settings. Opportunities to deliver primary care to these clients provide the students with challenges to expand their knowledge and skills as well as to explore judgment making and priority setting abilities. Clinical faculty, in collaboration with preceptors (physicians and/or nurse practitioners), provide guidance in the clinical settings under contract with the School of Nursing and Health Systems. The graduate student must have precepted with a master's prepared nurse practitioner prior to completion of the final clinical. This clinical will build on skills and knowledge previously obtained at the beginning and intermediate levels. Four credits are required for course completion. The student will complete 5.5 contact hours per week per credit. Prerequisites: NUR 584 and three (3) credits of NUR 674, current NYS RN license, current CPR certification, complete health clearance on file in the SON&HS office. Corequisites: NUR 659, NUR 667.

NUR 692 Culminating Seminar for Nurse Practitioners (2)

Seminar provides opportunity for the students to critically reflect upon personal and professional values. Benner's Model of Novice to Expert is used as a framework for students to self examine their ongoing development in clinical proficiency as they advance toward achieving professional excellence. Standards and scope of practice specific to the role of the nurse practitioner are emphasized. Relevant issues related to legal and regulatory constraints within a competitive and challenging health care system are also examined at the local, state, and federal levels. Prerequisites: NUR 658; for adult nurse practitioner majors, NUR 653, NUR 672; for family nurse practitioner majors, NUR 652, NUR 670. Pre/Corequisites: For adult nurse practitioner majors, NUR 669, NUR 682; for family nurse practitioner majors, NUR 668, NUR 680.

**Pending program change approval.*

Psychology

PSY 570 Measurement & Assessment (3)

Assessment is a critical feature underlying all educational and clinical interventions. This course exposes the graduate student to the measurement principles, ethical, legal and social issues involved in psychological testing and to the nature, administration and interpretation of psychological tests encountered in educational and health care settings.

Technology Information Management

TIM 500 Project Management (3)

Reviews traditional project management techniques and project based organizational structures. Special attention is given to the integration of project management with technology and strategic objectives. Organizational issues, project tracking, the project manager, and project management techniques are examined both from the conceptual and the applied aspects. The potential for transferring knowledge gained from projects to multiple areas in the organization is also covered. Students will experience computer application software to support and implement project management activities.

TIM 530 Managing New Product Design and Development (3)

Regardless of the industry or business involved, careful attention must be given to the way new products are designed and developed. Various aspects of product design and development are studied; including the functions of research and development, marketing, finance, design, manufacturing, and technical specifications. Special attention is given to the tools and methodologies necessary in the creation and development of a new product. An important focus of this course is on the challenges and perspectives presented by products that result from high technology environments or are themselves "high technology products."

TIM 585 Cases in Technology and Innovation Management (3)

Key areas of management, production and distribution will be examined and the impact of rapid technological advances on them will be analyzed. Appropriate responses will be developed and discussed. Primary method of instruction is "Case Studies" and seminar discussions.

TIM 685 Strategic Planning (3)

This is the capstone strategy course that covers the economics and strategy of technology and innovation management. An integrating experience using case studies to apply the various skills and knowledge accumulated throughout the required coursework in business and technology management. Special emphasis will be upon how organizations fit within the social, political, and economic environments. Managerial strategies to optimize achievement of objectives in high technology environments will also be covered. [Formerly BUS 685]

Telecommunications

TEL 500 Voice Communications (3)

Provides knowledge of the components, operations, and services of analog and digital local loop circuit switched networks, digital and VOIP PBXs, and signaling systems. Advances in wire line and wireless voice telecommunications networks including VOIP, power line communications, passive optical networks, and broadband wireless are investigated.

TEL 501 International Telecommunications Policy and Trade (3)

A course investigating trade in services and equipment policies of the United States, the European Community, and other major governments, as well as international trade agencies, international carriers, and transnational corporate users of telecommunications. Topics include competition and privatization, bilateral and multilateral trade agreements including GATT, the WTO, international technical standards, intellectual property, and the competitive satellite industry. This course also addresses the reorganization and global responsibilities of the International Telecommunications Union.

TEL 502 Data Communications (3)

Data communications is a rigorous treatment of advanced topics in the technology of communicating digital information over public and private communications facilities. The topics include general principles, LANs, WANs, and related topics. These topics are covered in: lectures, individual exercises, team exercises, and interactive competitive team projects.

TEL 505 Network Design and Simulation (3)

A course investigating network design and simulation modeling enabling telecommunications system developers to evaluate the performance of existing and proposed networks under different hardware, configurations, or operating constraints. Simulation modeling minimizes risks of unforeseen network bottlenecks, under utilization of overuse of system resources.

TEL 516 Digital & Internet Telephony (3)

Addresses both fundamental and advanced concepts in digital and internet telephony. The laboratory exercises are application oriented and address both telecommunications switching and transmission systems thereby allowing students to reinforce concepts such as the convergence of voice, data and multimedia, voice over IP. Prerequisite: TEL 201 or TEL 500.

TEL 520 Telecommunications Systems Analysis and Project Management (3)

A study of project management techniques and processes from a corporate user perspective. Topics include strategic planning, needs assessment, development of requests for proposals, security and disaster planning, financial evaluation techniques, negotiation with vendors, outsourcing, implementation and system changeover planning, and creation of validation and acceptance test procedures. Cross listed with TEL 420.

TEL 527 Telecommunication Optical Networks (3)

Addresses techniques for designing single and multiple wavelength long-haul and metro telecommunication optical networks. Topics include general principles of optical components, design parameters and design techniques. These topics are covered in: lectures, individual exercises, team exercises, and computer simulations. Please note that this course is not at a level that is appropriate for Electrical Technology and Electrical Engineering students and is not likely appropriate for physics majors as well because of the depth and breadth of the coverage.

TEL 530 Telecommunications Law and Policy (3)

A seminar in the regulation of telecommunications in the United States. Designed to provide students with an understanding of the regulatory and antitrust environment and its impact on competition and services. Social and political issues affecting telecommunications regulation are also addressed.

TEL 535 Public Safety Telecommunications (3)

An analysis of Public Safety Telecommunications' technologies, technical standards, and political issues. Major subjects studied include narrowband and broadband interoperability challenges for police, fire, EMS, and transportation agencies; ultra wide band systems, APCO project 25; TETRA, project MESA; vendor MESA; vendor communities; and commercial considerations in acquiring a new network. The general methodology for designing a generic public safety network will be examined, as well as a case study of a current advanced public safety network.

TEL 540 Integration of Telecommunications and Computer Systems (3)

Analyzes the principles, operations, and implementation of computer integrated-telecommunications in various corporate environments.

TEL 570 First Mile Access Networks (3)

An overview of technologies behind the first mile networks, often referred to as the local loop. Topics included will be Passive Optical Networks, Enterprise Fiber Solutions, Wireless Communications, Broadband Wireless Access, Free Space Optics, DSL Technologies, and Power Line Communication. These topics are covered in lectures, individual exercises, and team exercises. Please note that this course is not at a level that is appropriate for Electrical Technology and Electrical Engineering students and is likely not appropriate for physics majors as well because of the depth and breadth of the coverage.

TEL 580 Strategic Integration of Telecommunications in a Competitive Environment (3)

Examines the role of the telecommunications manager as the purveyor of information technologies within the modern corporate environment. Includes a review of strategic telecommunications system analysis and design. Relies on extensive use of case studies.

TEL 581 Survey of Information Assurance (3)

A fast paced introduction into the field of Information Assurance. Various kinds of threats faced by an information system and the security techniques

used to combat them are covered. Hacker methods, viruses, worms, bombs and system vulnerabilities are described with respect to the actions that must be taken by a network manager to thwart them. Existing and planned protection methods and defenses are mapped to the information system threats and attacks. This course provides the background for those individuals who seek skills in the areas of Network and Data Security.

TEL 582 Security for Telecommunications Networks (3)

A course providing advanced skills required to analyze internal and external network security threats, and develop security policies to protect an organization's information. Students will learn how to evaluate network and Internet security challenges and design and implement firewall strategies. Prerequisite: TEL 581.

TEL 583 Network Protocols (3)

Network protocols is an advanced telecommunications course that covers the details of data network standards, architectures, and protocols with emphasis on TCP/IP. The topics include Network Access protocols, IP, UDP, TCP, Routing Protocols, and TCP/IP Applications. They are covered in lectures, individual exercises, team exercises, and team projects. Prerequisite: TEL 502.

TEL 585 Telecommunications Electronic Commerce (3)

Examines international trade, political, and technological dimensions of telecommunications electronic commerce. Government, international trade agency, and telecommunications network supplier and client planning for competition policy, intellectual property protections, security and privacy are analyzed.

TEL 590 Selected Topics in Advanced Telecommunications (3)

A course investigating current topics related to the research, development, deployment, and planning of new networks, signaling systems, transmission media and switching systems. Topics include wireless personal communications systems; satellite networks with an emphasis on the impact of fixed and mobile satellite systems on the economy and society; Broadband ISDN; ATM; SONET; AIN; and voice and data compression techniques.

TEL 591 Independent Study (Variable 1-3)

Extensive study and research on a particular topic of student interest under the supervision of a faculty member. The student is required to submit a written proposal which includes a description of the project, its duration, educational goals, method of evaluation and number of credits to be earned.

TEL 594 Graduate Internship (3)

Students work for an organization approved by their advisor for a minimum of 250 hours in a supervised position. Students are required to write two reports on their internship experience. Work must be completed in one term, or during the summer.

TEL 597 Research Project

Upon approval of the advisor, student will research, design, solve and implement a graduate project.

TEL 599 Thesis

Upon approval of the advisor, the student will research and write an original work on a significant topic in the field of telecommunications.



APPLICATION FOR GRADUATE ADMISSION

SUNY INSTITUTE OF TECHNOLOGY

PLEASE PRINT CLEARLY

PERSONAL INFORMATION

1. Last (Family), First, Middle

1a. Do you have any educational records under a different name?

Former name:

2. Street Address:

3. City, State or Country, Zip:

3a. Are you a NYS resident: yes no

If yes, for how long?

4. In case of emergency, notify:

5. Present employer:

6. Employer's address:

7. Position:

8. Number of years at this position:

9. Social Security Number:

10. Date of Birth (mm/dd/year):

11. Home Telephone:

11a. E-Mail Address:

12. Business Telephone:

13. Emergency Telephone:

14a. State or Country of Birth:

14b. Country of Citizenship:

14c. Gender Male Female

15a. Are you a permanent resident of the United States? Yes No

15b. If yes, provide your alien registration # _____

16. Your response to the following racial/ethnic question is voluntary, but federal civil rights legislation and implementing regulations require the institution to submit counts of its student body by racial/ethnic categories. Your cooperation is appreciated.

White, Non-Hispanic Black, Non-Hispanic American Indian/Native Alaskan Hispanic/Latino Asian or Pacific Islander Not listed

APPLICANT INFORMATION

17. I wish to enroll in:

Fall

Full Time

GRE

Date: _____

Spring of 20__

Part Time

I have taken the: GMAT

Date: _____

TOEFL

Date: _____

17a. Program _____

17b. If Technology Management, please indicate concentration: _____

If Accountancy, M.B.A. or Health Services Administration, are you interested in courses: on-line on campus

18. I desire on-campus housing: Yes No

EDUCATIONAL INFORMATION

| 19. College | City & State or Country | From (Mo./Yr.) | To (Mo./Yr.) | Major | GPA | Degree and Year |
|-------------|-------------------------|----------------|--------------|-------|-----|-----------------|
| | | | | | | |
| | | | | | | |
| | | | | | | |

20. This is my first application to a SUNYIT Graduate Program Yes, or I last applied ____/____/____. I last attended ____/____/____.

21a. I am applying for an assistantship: Yes No Assistantship candidates must complete **Application for Assistantship** included in catalog.

21b. I am applying for a Diversity Fellowship: Yes No

22. I have applied for the following additional assistance which would be applicable to my SUNYIT studies: _____

23. List other schools to which you are applying (this is for internal use only and will not prejudice your application): _____

CONTINUED ON BACK

24. Answering "yes" to the questions listed below will not automatically prevent admission, the institution may use this information to insure campus safety. An applicant who responds "yes" to either of these questions will be requested to provide further information for admission consideration. The information will be reviewed by a campus committee. Any deliberate falsification or omission of data may result in a denial of admission or dismissal.

Have you been convicted of a felony? Yes No

Have you been dismissed from a college for disciplinary reasons? Yes No

PREVIOUS EMPLOYMENT

25. _____

| | | | |
|---------------|----------------|----------------|--------------|
| Position held | Employing Firm | From (Mo./Yr.) | To (Mo./Yr.) |
| Position held | Employing Firm | From (Mo./Yr.) | To (Mo./Yr.) |
| Position held | Employing Firm | From (Mo./Yr.) | To (Mo./Yr.) |

FOREIGN STUDENT INFORMATION

26. My present U.S. nonimmigrant status is:
 Student F-1 or J1 _____ with an expiration date of _____
 Visitor with termination date of _____ Other
 Month and Year State Type, Conditions and Termination Date

AGREEMENT: I HAVE REQUESTED EACH OF THE SCHOOLS LISTED IN QUESTION 19 TO SEND OFFICIAL TRANSCRIPTS TO SUNYIT. THE INFORMATION SUPPLIED IN THIS APPLICATION IS COMPLETE AND ACCURATE, TO THE BEST OF MY KNOWLEDGE.

X _____ Date _____
 Signature of Applicant

Application Fee: \$50. Make checks payable to: SUNY Institute of Technology.

OFFICE USE ONLY
 Admission _____
 Dept./Status/Degree
 Conditions: _____

Program Chair _____
 Signature and Date
 Division Dean _____
 Signature and Date
 Graduate Dean _____
 Signature and Date

APPLICATION FOR A GRADUATE ASSISTANTSHIP

Name of Applicant _____

Undergraduate Degree/Major _____ Undergraduate GPA _____

Please write a brief narrative outlining the reasons you are requesting a graduate assistantship.

(If more space is needed, attach an additional page.)

Reviewed by:

Faculty/Advisor

Date

Recommended by:

Dean/Department Chair

Date

Please return to the Admissions Office.

SUNY Institute of Technology
P.O. Box 3050
Utica, New York 13504-3050

GRADUATE SCHOOL REFERENCE REPORT

Name of Applicant _____

Applying for the _____ (degree) _____ program.

Name and title of person supplying reference:

| | |
|------|-------|
| Name | Title |
|------|-------|

AUTHORIZATION FOR WAIVER: TO BE READ AND SIGNED BY APPLICANT: This waiver is not required as a condition of admission.

I understand my right under the U.S. Family Education Rights and Privacy Act of 1974 to review confidential appraisals placed in my file that are submitted with reference to admission to a graduate or other school.

I do do not waive my right to review this reference report.

| | |
|------|------------------------|
| Date | Signature of Applicant |
|------|------------------------|

TO THE APPLICANT: Complete the above information and send this form with a reference envelope to the individual who will be providing your reference.

TO THE EVALUATOR: In the space below please comment on the following: 1. How long and in what capacity you have known the applicant. 2. The applicant in terms of talents, abilities, potential, organizing and communicating ideas, seriousness, and maturity and stability in the face of prolonged and difficult work. 3. Other relevant information not found elsewhere in the application materials. Return this form in the envelope provided.

| | | |
|-----------|----------------|------|
| Signature | Position/Title | Date |
|-----------|----------------|------|

Name and Address (Please type or print) _____

SUNY Institute of Technology
P.O. Box 3050
Utica, New York 13504-3050

GRADUATE SCHOOL REFERENCE REPORT

Name of Applicant _____

Applying for the _____ (degree) _____ program.

Name and title of person supplying reference:

| | |
|------|-------|
| Name | Title |
|------|-------|

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| | | |
|-----------|----------------|------|
| Signature | Position/Title | Date |
|-----------|----------------|------|

Name and Address (Please type or print) _____

SUNY Institute of Technology
P.O. Box 3050
Utica, New York 13504-3050

GRADUATE SCHOOL REFERENCE REPORT

Name of Applicant _____

Applying for the _____ (degree) _____ program.

Name and title of person supplying reference:

Name Title

AUTHORIZATION FOR WAIVER: TO BE READ AND SIGNED BY APPLICANT: This waiver is not required as a condition of admission.

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Date Signature of Applicant

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TO THE EVALUATOR: In the space below please comment on the following: 1. How long and in what capacity you have known the applicant. 2. The applicant in terms of talents, abilities, potential, organizing and communicating ideas, seriousness, and maturity and stability in the face of prolonged and difficult work. 3. Other relevant information not found elsewhere in the application materials. Return this form in the envelope provided.

Signature Position/Title Date

Name and Address (Please type or print)

APPLICATION FOR GRADUATE ADMISSION

SUNY Institute of Technology

STATEMENT OF EDUCATIONAL OBJECTIVES

Applicants to the graduate programs in Advanced Technology, Applied Sociology, Information Design and Technology, Nursing (Adult Nurse Practitioner, Family Nurse Practitioner, Nursing Administration, Nursing Education, and Gerontological Nurse Practitioner), and Telecommunications must submit a written statement of reasons for seeking admission to the master's program, identifying immediate and long-term professional goals and relating intended contributions to the professional field after completion of the master's program.

STATE UNIVERSITY OF NEW YORK INSTITUTE OF TECHNOLOGY



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Two exciting new building projects are planned:
\$20 million athletics field house
\$13.6 million student center

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We'd be happy to answer any questions, send an application,
or schedule an appointment for you.

Please write or call:

Director of Admissions
SUNY Institute of Technology
P.O. Box 3050, Utica, New York 13504-3050

(315) 792-7500 or
Call toll free @ 1 (866) 2 SUNYIT

admissions@sunyit.edu
www.sunyit.edu