## 1981 - 1982 INSTITUTE CALENDAR

(Official Institute Calendar as adopted by Policy Council on October 22, 1975)

### Fall Quarter 1981-82
- **June 8-Aug. 14**: CCE Mail-In Registration for Fall
- **June 8-Aug. 28**: CCE Walk-In Registration for Fall
- **September 1, 2**: CCE Open Registration for Fall
- **September 6**: Move-In Day for New Resident Students
- **September 6-9**: Orientation for New Students
- **September 8**: First Day of Classes (CCE)
- **September 9**: Day Colleges Open Registration
- **September 10**: First Day of Classes (Day Colleges)
- **September 10**: Non-Matriculated Student Day College Registration
- **September 15**: Physical Education Registration
- **November 18**: Last Day of Classes (Day Colleges)
- **Nov. 19, 20, 21, 23**: Exam Week
- **November 23**: Last Day of Classes (CCE)
- **November 24-29**: Fall/Winter Break

### Winter Quarter 1981-82
- **Oct. 26-Nov. 6**: CCE Mail-In Registration for Winter
- **Oct. 26-Nov. 20**: CCE Walk-In Registration for Winter
- **November 23, 24**: CCE Open Registration for Winter
- **November 30**: First Day of Classes (CCE)
- **November 30**: Day Colleges Open Registration
- **December 1**: First Day of Classes (Day Colleges)
- **December 1**: Non-Matriculated Student Day College Registration
- **December 7**: Physical Education Registration
- **December 19**: Last Day of Classes Before Christmas Break
- **January 4**: Classes Resume After Christmas Break
- **February 2**: Teaching Effectiveness Conference
  - (No Day College Classes)
- **February 23**: Last Day of Classes (Day Colleges)
- **Feb. 24, 25, 26, 27**: Exam Week
- **February 27**: Last Day of Classes (CCE)
- **Feb. 28-Mar. 7**: Winter/Spring Break

### Spring Quarter 1981-82
- **February 1-12**: CCE Mail-In Registration for Spring
- **February 1-26**: CCE Mail-In Registration for Spring
- **March 8**: First Day of Classes (CCE)
- **March 8**: Day Colleges Open Registration
- **March 9**: First Day of Classes (Day Colleges)
- **March 9**: Non-Matriculated Student Day College Registration
- **March 12**: Physical Education Registration
- **May 17**: Last Day of Classes (Day Colleges)
- **May 18, 19, 20, 21**: Exam Week
- **May 22**: Last Day of Classes (CCE)
- **May 22**: Commencement
- **May 23-31**: Spring/Summer Break

### Summer Quarter 1981-82
- **Apr. 26-May 7**: CCE Mail-In Registration for Summer
- **Apr. 26-May 21**: CCE Walk-In Registration for Summer
- **May 25, 26**: CCE Open Registration for Summer
- **June 1**: Day Colleges Open Registration
- **June 2**: First Day of Classes (CCE & Day Colleges)
- **June 2**: Non-Matriculated Student Day College Registration
- **June 8**: Physical Education Registration
- **July 5**: Holiday (No Classes)
- **August 13**: Last Day of Classes (Day Colleges)
- **Aug. 14, 16, 17**: Exam Week
- **August 17**: Last Day of Classes (CCE)

*Dates of Various Summer Sessions to be announced*

### REGISTRATION SCHEDULE FOR DAY COLLEGE-1981-1982

<table>
<thead>
<tr>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
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<tbody>
<tr>
<td>A: 9:00am</td>
<td>2:00pm-9:30am</td>
<td>4:00pm-10:30am</td>
<td>M: 8:00am</td>
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<td>B: 9:00am</td>
<td>2:00pm-10:00am</td>
<td>8:30am-11:30am</td>
<td>N, O, P: 12:00pm</td>
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<td>C: 9:00am</td>
<td>2:30pm-10:30am</td>
<td>9:00am-11:30am</td>
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<td>D, E: 9:30am</td>
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<td>F, G: 12:30pm</td>
<td>3:30pm-1:00pm</td>
<td>10:00am-11:00am</td>
<td>T, U, V: 8:30am</td>
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<td>H, I, J: 11:00am</td>
<td>4:00pm-1:30pm</td>
<td>10:30am-9:00am</td>
<td>W, X, Y, Z: 8:30am</td>
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<td>K, L: 10:00am</td>
<td>4:30pm-2:00pm</td>
<td>11:00am-9:00am</td>
<td>note: Student Registration: 8:30am - 12:30pm</td>
</tr>
</tbody>
</table>

**note #1**: RETURNING STUDENTS ONLY, 8:00am to 12:30pm

**note #2**: NEW STUDENTS ONLY, 2:00pm to 7:30pm

### Holiday Dates
- **December 25**: Christmas Day (No Classes)
- **December 26**: Christmas Day (No Classes)

### Generic Dates
- **January 1**: New Year's Day (No Classes)
- **July 4**: Independence Day (No Classes)
- **September 1**: Labor Day (No Classes)
- **November 25**: Thanksgiving Day (No Classes)
- **December 24**: Christmas Eve (No Classes)
- **December 31**: New Year's Eve (No Classes)

### Important Dates
- **February 28**: Last Day of Classes (Day Colleges)
- **March 8**: Last Day of Classes (CCE)
- **April 22**: Easter Sunday (No Classes)

### Office Hours
- **Monday - Friday**: 8:30am - 4:30pm
- **Saturday**: 8:30am - 12:00pm

### Contact Information
- **Admissions Office**: 585-475-2000
- **Financial Aid Office**: 585-475-2100
- **Registrar's Office**: 585-475-2200

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**Note:** The above information is subject to change without notice. Always consult the official Institute Calendar for the most up-to-date information.
About this bulletin-
The RIT Undergraduate Bulletin does not constitute a contract between the Institute and its students on either a collective or individual basis. It represents RIT's best academic, social, and financial planning at the time the Undergraduate Bulletin was published. Course and curriculum changes, modifications of tuition, fee, dormitory, meal and other charges, plus unforeseen changes in other aspects of RIT life sometimes occur after the bulletin has been printed but before the changes can be incorporated in a later edition of the same publication. Because of this, Rochester Institute of Technology does not assume a contractual obligation with its students for the contents of this Undergraduate Bulletin.

RIT admits and hires men and women, veterans and disabled individuals of any race, color, national or ethnic origin, or marital status, in compliance with all appropriate legislation, including the Age Discrimination Act. The compliance officer is James Papero.

General Information and Undergraduate Study 1981/82

Produced by RIT Communications

For more information concerning undergraduate study at RIT, or for a complete list of courses offered, write or phone:

Rochester Institute of Technology
Office of Admissions
One Lomb Memorial Drive
P.O. Box 9887
Rochester, NY 14623
(716) 475-6631

Postmaster: Send all address changes to above address
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Campus Map (inside back cover)
RIT at a Glance

Location
Campus in Rochester, New York. The Rochester metropolitan area has a population of about 700,000. City Center campus in downtown Rochester, and Eisenhower College campus in Seneca Falls, New York.

Type
Private, coeducational, non-sectarian

Orientation
Science, technology, the fine and graphic arts, management, selected social professions, with strong emphasis on professional competency

Size
Full-time equivalency enrollment in fall, 1980 was 10,500 students

Calendar
RIT operates on the quarter plan, each quarter being 11 weeks in duration. Many classes also are available during the summer (see current summer sessions bulletin).

Degrees
Associate in Arts (AA), Associate in Science (AS), Associate in Applied Science (AAS), Bachelor of Fine Arts (BFA), Bachelor of Science (BS), Bachelor of Technology (B. Tech), Master of Business Administration (MBA), Master of Engineering (ME), Master of Fine Arts (MFA), Master of Science (MS), Master of Science for Teachers (MST); Bachelor of Arts (BA) at Eisenhower College.

Housing
Residence halls for over 3,000 students, with on-campus apartments and townhouses for upperclass students

Sports
Full intercollegiate sports schedule, as well as intramural and recreational programs; facilities include indoor ice rink and pool.

Other cocurricular activities
Fraternities, sororities, professional and honorary societies, special interest clubs, service organizations

Alumni
More than 40,000 in all 50 states and worldwide

Placement
The Institute makes every effort to help students find employment, both during school and after graduation. Central Placement Services acts in four principal areas as a liaison between employers and those students seeking positions. These areas include: part-time jobs on campus and within the community, summer work, cooperative employment, and permanent employment for senior students and alumni.

Accreditation
The Institute is chartered by the legislature of the State of New York and accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools. In addition to institutional accreditation, curricula in some of the colleges are accredited by appropriate professional accreditation bodies. Specific mention of these are included in the college descriptions, where applicable.

What Is RIT?

With a history of more than 150 years, Rochester Institute of Technology is a privately endowed, co-educational, non-sectarian major institution of higher education: its principal task is preparing students for technological competence in a world of change.


As the information contained in these pages shows, RIT offers a variety of master’s, bachelor’s and associate’s degrees, as well as certain certificate and diploma programs.

Some of these offerings are unique or unusual: packaging science, nuclear medicine technology, printing, photographic science, and the programs of the School for American Craftsmen and the previously-mentioned National Technical Institute for the Deaf (NTID).

Many of the programs are co-op, a formal program of campus study augmented by work off campus in the student’s chosen field. Pioneered by RIT in New York State, the cooperative educational concept epitomizes the Institute’s “learn by doing” philosophy. During the past academic year, nearly 2,000 students in business, engineering, science, engineering technology, printing and computer science and technology, alternated academic quarters with work quarters during their last two or three undergraduate years.

RIT’s students reflect the diversity of its programs. They come from almost every state in the union and many foreign countries. More than 45 percent transfer from two-year / Colleges or other four-year institutions. Older and part-time students comprise a greater and greater proportion of the total enrollment.

The percentage of women also is increasing; today about a third of the Institute’s students are female.

An increasing number of RIT alumni are entering graduate schools, but RIT maintains its focus on preparation for moving directly into professional occupations.

RIT continues to place basic emphasis upon teaching as the essential responsibility of the faculty. In support of this are such activities as an Institute Committee on Effective Teaching and individual and group projects to improve teaching productivity. However, faculty are engaged also in research and other scholarly activities.

The Institute’s alumni number more than 40,000 in every state and worldwide.

RIT’s campus in suburban Rochester occupies 400 acres on a 1,300 acre site. It houses complete
academic and sports facilities, including an indoor ice rink and Olympic-size swimming pool. The academic/administrative complex of 13 buildings, which has received several architectural awards, is arranged as three adjacent quadrangles. The residential complex of 16 interconnected buildings is reached by a quarter-mile mall past tennis courts and playing fields. Adjacent to the residential area is the NTID academic/residence complex, completed in 1974.

Many of the Institute’s full-time day students live in Institute-operated residence halls. Three apartment villages with a total of 579 units house upperclass students.

With its comparatively small campus in Seneca Falls, RIT’s Eisenhower College offers students a rural life-style distinctly different from the other Institute facilities. Chartered in 1965 and opened in 1968 as the national memorial to former President Dwight D. Eisenhower, the college is situated on the west shore of Cayuga Lake, on the southeastern side of the upper New York State village. The community of approximately 9,000 persons is near the Montezuma National Wildlife Refuge and within an hour’s driving distance of Syracuse, Ithaca and Rochester.

The Institute maintains its City Center at 50 West Main Street in downtown Rochester. There the College of Continuing Education offers day and evening courses in which students pursue a range of aspirations from hobbies to master’s degrees. Graduate painting and art education are also located here.

More than 1,200 students are currently advancing their educational, vocational, and avocational objectives at the City Center. Besides its curricular uses, the City Center provides many technical and community service programs and houses the School of Applied Industrial Studies.

An ongoing intent
When the Rochester Athenaeum was founded in 1829, its intent was to prepare students for “the making of a living and the living of a life.”

One hundred and fifty two years later, RIT’s seventh president, Dr. M. Richard Rose, continues to articulate that purpose: “This saying speaks of making a living and living a life not as two distinct processes, but as one. It is an idea that is central to the type of education that we do best here at RIT.”

NOTE: For information on offerings of the College of Continuing Education, Eisenhower College or the National Technical Institute for the Deaf, please write to that respective college for its Official Bulletin or catalog.
RIT Proud of Link With Rochester, Dr Rose Asserts

“RIT means different things to different people,” says Dr. M. Richard Rose, the Institute’s seventh president. “For those of us who work and study here, it’s a progressive academic citadel that always has been willing to take those extra steps necessary to maintain relevant educational programs.

“RIT also is something special to those in the greater Rochester community who may never have studied or worked at any of our facilities. It’s a special pride in having the main campus of the Institute here.

“For, in many ways, it symbolizes much of what we find so desirable about our community, particularly through its attractive blend of tradition, culture, innovation, business and education.

“Yet, in many ways it has grown hand-in-hand with greater Rochester itself. Its very roots are in the area’s early industry.

“It is this link with greater Rochester’s history and growth that makes RIT a special place for the entire community. It’s a link of which we’re very proud. We hope you will share in the pride.”

Career Education Supports Strong Links With “Working World”

Established in 1977, the Office of Career Education at RIT exists to provide leadership and service to students and academic units of the Institute regarding career education activities. Generally speaking, the office supports programming and services that strengthen the linkages between the employment sector and the Institute. Its primary objective is to help students learn about the opportunities and limitations of the world of work. This is accomplished through three basic program activities including:

1. Career and Academic Advisement
2. Experiential Education
3. Career Education Research

Career and Academic Advisement
The role of career and academic advisement is to assist the entering and continuing student with development of career goals and academic plans. While the student assumes responsibility for maintaining a record of his or her academic performance, the faculty advisor uses professional expertise to assist the student in setting realistic career goals and planning compatible educational program.

Each student is given an informational folder with forms to explain degree requirements, to record courses completed and grades achieved, to plan a program of study, and to assist with career decision making. It is the student’s responsibility to have these forms up to date before discussing academic planning with an advisor.

Faculty advisors strive to increase the student’s awareness of his or her abilities and talents as they relate to emerging career goals. The advisor also helps the student focus a career goal and plan a program of study in accordance with degree requirements. In addition, the advisor can provide information about Institute policies, procedures and campus resources. When appropriate, the advisor may facilitate the referral of a student to other campus resources such as the Counseling Center, Learning Development Center, Student Health, registrar, and financial aid.

Individuals with questions about the advising system are encouraged to contact the coordinator of advising in their respective department or college.

Experiential Education
Experiential education provides the RIT student with experience related to personal career planning. A complement to the academic course work, internships, co-ops, apprenticeships, and other forms of experiential education provide an environment for testing academics in career related situations. Through combined efforts of students, RIT faculty, Career Education, and representatives of specific career fields, the student gains firsthand experience relative to his or her career interests.

Experiential learning promotes learning beyond the classroom. It is designed to let the student know what it means to work in a specific field.

Experiential education denotes RIT’s philosophy of preparedness for a working society and offers students opportunities to develop further expertise in chosen career fields. During a typical off-campus working experience, the student learns through actual career-field employment.

Students are encouraged to seek further learning or employment in geographic areas that they prefer for permanent employment and in areas that represent the growth of that particular job market. In many instances, the opportunity leads to career possibilities upon graduation. Both the student and the employer have a chance to learn what each has to offer the other.

Experiential learning happens in many forms. The most commonly known is that of cooperative education. Other forms of experiential learning are available through various RIT college programs. Co-op, as well as internships, apprenticeships, and field experiences are designed to provide a closer linkage between the realities of the classroom and the realities of the workplace.

Career Education Research
Action-oriented career education research is constantly being conducted by RIT faculty, staff, and various business and industry advisory groups. However, thanks to a two-year grant from the Mobil Oil Foundation, Career Education is developing a centralized career education research system. The career education research function provides basic research information necessary for a career education institution.

Why is career education research important to you? Basically because it deals with questions that are vitally important to your own career development:

• What kind of work will a particular program prepare me for?
• What skills and attitudes are necessary for a career education research function?
• How successful are RIT graduates?
• How successful are RIT graduates?
• Where are the good jobs?
• What expectations do companies have of recent graduates?
• What expectations do companies have of recent graduates?

These and other questions will be investigated, and the answers will help guide your decisions in one of the most important phases of your life.
Central Placement Services

- career placement for seniors
- co-op placement for students in cooperative education programs
- assistance for students in locating part-time and summer positions
- alumni available opportunities
- newsletters

Students and alumni are assisted through:
- workshops, seminars, group meetings, and employer forums
- individual counseling sessions with placement staff
- an employer/career library
- campus interviews with employers
- employer job listings
- credential/recommendation services

Judith Vollmer-Miller, director of Central Placement Services, says her office encourages students to come in even before they enroll. “Sometimes a student’s first acquaintance with our office may be as a freshman, when looking for help in finding a part-time or summer job.

“We see most students for the first time when they’re ready for a co-op position.” Looking for a co-op job can be excellent preparation for the search for permanent employment. Central Placement Services advises students on how to write a resume, counsels on job search strategies, provides specific leads and contacts, advises on interviewing techniques, and encourages use of the office’s career and employer library.

Placement helps students find positions related to their major field of study so they can utilize their course work on the job. As the student advances, the Placement Office advises employers in the development of more complex and challenging tasks for each successive co-op assignment.

But Ms. Vollmer-Miller stresses the fact that the effort is a joint responsibility. “Placement doesn’t ‘place people,’” she explains. “Our function is to provide guidance and information for planning a career. The student has to do just as much work as we do — probably much more — to land a job.”

The same is true when it comes to looking for a permanent position during the senior year. Central Placement Services provides the same kind of guidance, including individualized counseling and a job listing system. We invite recruiters to interview seniors right here on campus. During 1980-81, 600 employers visited the campus to conduct interviews.

The placement results for RIT graduates have been excellent. Central Placement Services’ statistics on the 1979-80 graduating class indicate that over 76 percent secured employment in their chosen career field or entrance into graduate school soon after graduation.

But then, RIT has an edge on the competition, according to Ms. Vollmer-Miller. “It’s a known fact that employers are actively seeking RIT graduates, for a number of reasons. They’re career oriented, their education has been developed around current needs of business and industry, and they are more specific about their career objectives.”

Placement’s continuum goes on after a student graduates. Alumni are able to use the services of Central Placement. The guidance and training that a student receives during his or her school years will also serve when it’s time for a job change.

“Five years from now, there won’t be anyone right there to help,” Ms. Vollmer-Miller says. “If a student makes optimum use of our services while he or she is here, it will make future job searches easier.”

Ms. Vollmer-Miller’s responsibilities include managing a staff of 20, coordinating the four different functions (part-time, summer, cooperative and permanent employment), and sometimes counseling students herself. “I think it’s critical for me to keep in contact with students so that I can keep abreast of their expectations, goals, and competencies. All of us are involved daily with contacts in business and industry in order to maintain RIT’s visibility and market RIT students and graduates.”

Career Education is a ‘Very Old New Idea’ at RIT

RIT’s particular philosophy of education is called career education.

An interest in career education has characterized RIT from its beginnings. With the establishment in 1885 of the Mechanics Institute, a predecessor of RIT, evening courses were offered for workingmen who wanted to upgrade their skills in the booming post-Civil War economy. In 1891, Mechanics Institute and the Rochester Athenaeum were consolidated, and over the next decade developed and taught five three-year courses—mechanics, architecture, design, art and teaching. There were evening classes for employed persons and day classes available to homemakers.

When we started career education in the 1880s, we called it common sense. Our goal then was to prepare graduates for “the making of a living and the living of a life.” And over the years, we developed that philosophy of career education into a science.

What’s career education?

In simplest terms, it’s an education that helps prepare a student to find success and happiness in a chosen career field.

At RIT, it’s an education in engineering, fine arts, science, social work or any of the other multitude of programs offered through the 10 colleges.

But it’s an education with a difference. Our graduates can go directly into the professional world, doing professional work. Or they can choose further study and research in graduate programs.

It means our students develop a technical competence both within and outside the academic world. We recognize that many people already have careers but want to further their knowledge. We have programs and courses of study designed to accommodate these special needs.

Career education a new idea?

At RIT, where we’ve made a career out of career education, it’s the oldest young idea around.

Experiential education promotes career development

Experiential learning offers the RIT student the best of two worlds—classroom and laboratory as well as the world of work. These two elements combine to provide an education well recognized for its benefits.

RIT has been a leader in experiential learning through cooperative education since 1912. Working with all colleges and departments at the Institute, the Office of Career Education encourages further types of experiential education which help the student in academic studies, at the same time refining personal career goals.
A further potential benefit is the student's opportunity to earn part of the tuition expense from off-campus employment. In addition, a positive track record with one or more employers can be of real assistance to the student entering the job market after graduation. Faculty and staff assist the student in identifying the types of experiences related to the chosen discipline which will encourage career development. Application procedures are taught and referrals are made to employment opportunities as they develop. Geographic mobility is strongly recommended to applicants in order to take advantage of the best openings on a nationwide basis.

Nearly 3,000 students will participate in the various experiential education programs this year. Many field experiences are developed by RIT counselors and faculty members alike, but the students must compete for positions. They are encouraged to use Central Placement Services as well as initiate contacts on their own with professionals in their field of interest.

Experiential learning in the form of cooperative education is scheduled in quarter-long work blocks. Students participate in these work blocks in the upper division (third, fourth, and fifth) years with the exception of chemistry which starts in the second year.

Most upperclassmen in the colleges of Business, Engineering, Science, and Applied Science & Technology follow the pattern of alternating between single blocks of full-time study and full-time work. A double block arrangement (six consecutive months) is sometimes feasible if convenient for the employer and the class scheduling of the student.

Several variations are followed in other departments: The Department of Clinical Sciences uses a one-year internship model; social work and criminal justice include a junior year field experience component. The School of Printing and Department of Packaging Science offer optional co-op plans.

Experiential learning through cooperative education, internships, apprenticeships, field experiences, as well as classroom simulations and practicums, are being developed and refined continuously for all colleges.

These illustrations are not intended to be a complete catalog of possibilities. Applicants should contact the school or department of their choice for further details about the growing opportunities in experiential education.

**The RIT Student Body Is Characterized By Diversity**

There is no typical RIT student. If the student body could be characterized, however, it would be only by its diversity.

Some of our students have just graduated from high school. Some are transferring to RIT after going to college somewhere else. Some are returning to college after a long period of time. RIT is an institute where painters, potters and photographers go to school with accounting majors; where those interested in a career in social work study with those interested in mechanical engineering.

Students have entered RIT from every state in the United States and from many foreign countries. They come from varying economic and social backgrounds.

Yet, despite their diversity, they all have ideas about where they’re going in life. A recent survey of incoming freshmen and transfers showed that despite their diversity, most RIT students had one thing in common: they wanted a professional/technical career. This is what RIT is all about. Long before the word “career” became popular, RIT stood solidly behind the idea that education for work—for a job—was worthwhile and sound. And over the years RIT has built up a lot of experience in moving graduates directly into a career.

**Veterans**

The veteran, often a little older and usually ready to move directly toward a career goal, will find at RIT a serious purpose in education where he or she can make up lost time with minimum problems of adjustment. Veterans’ programs at the Institute help vets deal with the machinery of the Veterans’ Administration and with the opportunities the government gives them.

Study at RIT is approved under PL89-358 (Readjustment, 1966) PL815 or PL894 (Rehab) and PL634 (War Orphans). For benefits an application for the Certificate of Eligibility from the Veterans’ Affairs Office, located on the first floor of the administration building.

VA Form 21E-1995, “Request for Change of Program or School,” is used when the veteran wishes to transfer schools. This should be filled out immediately upon acceptance at RIT.

**Transfer students**

More than 45 percent of all full-time students attending RIT transferred from another two- or four-year college. RIT doesn’t simply absorb them and ignore their previous experience; RIT thinks it’s valuable. In order to continue building on its excellent relationship with two-year colleges, RIT has established the Center for Community/Junior College Relations. This is an excellent two-way channel for cooperative action. For information on transferring to RIT, see page 16.

**Deaf students**

The 930 students registered through the National Technical Institute for the Deaf (NTID) make a distinct contribution to the educational processes of the Institute. They are RIT students in every sense: they come from varied backgrounds, are registered in a wide variety of academic fields and fully share in the extracurricular and social life. Deaf and hearing students often share the same dormitories and sometimes the same room. They play on the same teams, attend many of the same classes. Hearing students also participate in programs for deaf students by interpreting, tutoring, and taking class notes for them. RIT is proud of its share in this national educational effort for deaf people. For more information on NTID, see page 125.

**Institute Standards For Student Conduct**

RIT’s educational mission

It is the mission of RIT “to prepare men and women for living and working in a democratic and technological society” by offering curricula that “meet the need for technological and other specialized knowledge and skills within the broader framework of humanistic values.” To achieve its mission, the Institute establishes guidelines that
provide for the orderly conduct of its instructional and campus life activities. As an educational community, it strives for a campus environment that is free from coercive, exploitative behavior by its members. Moreover, it sets high standards that challenge students to develop values that will enhance their lives professionally and that will enable them to contribute constructively to society.

Historically, RIT has aspired to the goal of teaching students for the “making of a living and the living of a life, not as two distinct processes, but as one.”2 This goal includes the emotional, physical, spiritual and social development of students. Because the Institute prepares its students for leadership in their careers and in community life, it has set standards of personal development and academic excellence that go well beyond the standards of the larger society. Moreover, the faculty and staff are expected to set examples for students in the pursuit of their personal and academic development. Although RIT acknowledges and respects the diversity of values and life styles of its faculty, staff and students, each member of the RIT community has the responsibility of observing the standards of campus life that are important to the pursuit of the Institute’s mission.

Principles underlying Institute conduct policies
1. Students are expected to assume responsibility for their own conduct and also to have concern for the behavior of others. Such responsibility includes efforts to encourage positive behavior and to prevent or correct conduct by others that is detrimental.
2. The Institute places high priority on self-regulation by its members and intends that campus life will provide opportunities for students to exercise individual responsibility.
3. The Institute acknowledges the diversity of backgrounds, life styles and personal moral values of those who comprise the Institute community, and respects the right of individuals to hold values that differ from those expressed by the Institute. However, in their activities and duties as students, they are expected to observe Institute policies and standards.
4. Moreover, the Institute has legitimate concern for personal behavior beyond the impact the behavior has on the rights and freedoms of others. When an individual's pattern of behavior is self-destructive, interferes with the achievement of one’s educational objectives, or adversely affects the quality of life on campus, the Institute may intervene to correct or prevent such behavior.
5. The Institute values and safeguards the personal privacy of its members. Rooms in campus housing will not be entered by Institute personnel without either the permission of the residents or the authorization of the vice president for Student Affairs unless a legal search warrant has been obtained. Exceptions are made in emergency situations such as imminent harm to individuals or serious damage to the Institute property and for reasons of health and safety. The Institute adheres to the provisions of the Buckley Amendment regarding the privacy of student records.
6. The conduct of students at events held off-campus which are sponsored by RIT organizations must adhere to the same standards and policies as events held on campus, and infractions are subject to Institute action.
7. For students living in campus housing, campus life standards have special significance. The residence hall environment is highly interpersonal, and the behavior of every individual in some way usually influences the quality of residence life for others. Therefore, standards and policies for residence life are stated explicitly and are communicated to students through residence halls publications.

Summary of conduct policies
In keeping with the principles listed above, the following broad areas of conduct for students are enunciated. Although they are not all-inclusive, they indicate in general terms the standards of student conduct that are important to the desired quality of campus life and to the educational mission of RIT. More explicit conduct policies are contained within FACTS, the RIT student handbook; the residence halls “Terms of Occupancy,” and other official Institute documents.

Human rights and dignity
The Institute expects all students to practice high regard for the human dignity of other people. It seeks to prevent all types of discrimination on the basis of race, sex, religion, age, handicap and national origin.

2George W. Hoke, Blazing New Trails (Rochester, N.Y.: Rochester Athenaeum and Mechanics Institute, 1937) p.V.
themselves of counseling or other appropriate treatment. Even though individual students may be receiving such assistance, they will be held accountable for their behaviors through established Institute judicial procedures.

**Study environment**

Students need a campus environment that is conducive to studying. This is especially important in those facilities that are designated primarily for study. In the residence halls, each separate living unit must establish in writing the policies it will maintain to provide adequate study conditions according to the basic standards established by the Institute.

**Safety**

Safety is of critical importance at all places on the campus, but it is particularly important in the residence halls because the carelessness of one individual can threaten the lives of hundreds of others. Willful violations of safety, such as causing false fire alarms, will result in immediate action according to judicial procedures. Safety inspections of individual rooms and group living areas will be conducted periodically by authorized Institute personnel.

**Student regard for property**

Students are expected to exercise appropriate care of Institute property and regard for the property of others. A student-developed property damage policy in the residence halls holds accountable those students responsible for damage.

**Student Misconduct**

RIT believes that other than major felonies, student misconduct can be most effectively handled on campus without going through outside law enforcement agencies. Every student has the right for a hearing before the Student Hearing Board on serious misconduct cases. The Student Hearing Board makes recommendations on appropriate sanctions to the vice president for Student Affairs. Although most students request to have their cases handled by an administrator rather than appearing before the Student Hearing Board, the administration relies upon the Student Hearing Board to resolve the more difficult cases where guilt or innocence is questionable, and to determine appropriate levels of sanctions for different types of misconduct. There are no official mandatory sanctions, but in general the following practices apply:

1. False fire alarms, assault with a weapon, sexual assault, and dealing hard narcotics will lead to immediate suspension and possible arrest.
2. Theft of any amount will lead to a deferred suspension status (sanction of disciplinary suspension is imposed, but indefinitely deferred pending future conduct) plus compensation in the form of “work hours” up to the value of the items stolen; this is in addition to return of or restitution for the actual objects stolen.
3. Possession of marijuana results in an initial warning; further incidents could lead to removal from residence halls, disciplinary probation, or suspension from school.
4. Possession of harder drugs, depending upon amount, would lead to removal from residence halls, deferred suspension, possible arrest and/or actual suspension.
5. Alcohol intoxication leads to an initial warning; further incidents could lead to required counseling, removal from residence halls, and disciplinary action for any acts of misconduct committed while under the influence.
6. Disorderly conduct and disturbing the peace will result in warnings, probation, removal from residence halls, deferred suspension, or actual suspension depending upon seriousness of the incident and previous conduct record; fighting generally results in deferred suspension.
7. Vandalism results in restitution, plus disciplinary action ranging from warning, probation, deferred suspension, or actual suspension and/or arrest, depending upon the extent.

Students who are interested in serving on the Student Hearing Board, or who have questions concerning RIT’s internal judicial process and student rights on campus, should contact Dr. Stanley D. McKenzie, assistant to the vice president for Student Affairs/Judicial Affairs, in the Student Affairs Office on the mezzanine level of the College-Alumni Union, telephone extension 2265.

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**Admissions Staff Strives To Serve Special Needs**

RIT takes pride in the diversity of its student body—a diversity actively promoted by the Office of Admissions.

Women, veterans, middle age students, minorities, commuters, handicapped and international students are people with individual needs that require support from RIT’s student services, according to E. Louis Guard, RIT director of Admissions.

“Each of the admissions staff members works with a group of students who may have special needs,” he says. “In addition to the daily counseling and recruiting responsibilities, each counselor acts as an advisor and program coordinator for a different group on campus.

“Arthur C. Friedel keeps in contact with the international students on campus, who are here from as far away as Australia and Denmark.

The international student population at RIT is steadily increasing due to the unique educational opportunities offered. Graduates return to their respective countries with the knowledge and expertise needed for application to solve economic, technical and environmental problems.

“A photographer from Switzerland might come to RIT for refresher courses, or a whole group may come to campus for a full four- or five-year degree program. Whatever the case, they need someone on campus who can direct them to the services offered in English tutoring, counseling or health care. And our department offers that personalized assistance.

Barbara Bell’s concern is the minority student. “She actively recruits minority students, conducts special career days for prospective students, and acts as their liaison and advisor once they get here,” Guard relates.

“Eisenhower College adds a unique liberal arts-World Studies option to complement RIT’s technical programs, as well as offering the contrast of a rural campus setting,” Guard noted.

Another admissions staff member takes particular interest in women on campus, and is sensitive to the fact that RIT has been viewed as a technical, and therefore male-oriented institution. “Dorothy Lowe
is involved in encouraging women to undertake careers in technical fields, and telling them about the many options open to them,” Guard explains. “We also assist students in locating services they may need on campus—in child care, chaplaincy, counseling, or career development assistance.”

Whether you are a high school student or an experienced homemaker exploring a second career, we encourage you to seek our assistance while you clarify and re-examine your personal career goals. New and exciting career opportunities are available in areas that traditionally were thought of as being male dominated. Majors in accounting, engineering, and photographic marketing management are just a few of the many programs available at RIT for women who are interested in pursuing challenging careers.

Dorothy is prepared to draw upon the various Institute resources and support services* to explore the world of work to placement services for those ready to begin the job search. Through this assistance and referral, we can give you a better insight into the opportunities and challenges at RIT.

This involvement of the admissions staff allows them to keep in contact with students currently enrolled. Guard points out that although his role as director is primarily managerial, he acts as an advisor to a fraternity and still does counseling.

“If we’re going to counsel incoming students intelligently, we all have to be involved with the day-to-day concerns of students who are already here. Our advisory functions keep us in touch,” he remarks. “Plus the input of the students who work with us part-time in the office is great for providing regular feedback.”

The actual admissions procedure is another way in which the admissions staff maintains personal contact with students. A prospective student can expect the admissions staff person who initially interviews him or her to act as a liaison throughout the admission process. The counselor takes personal responsibility for following up on the status of each applicant.

Guard explains that the Office of Admissions is more interrelated with other departments. “We work closely with Financial Aid, the Counseling Center, the Learning Development Center, Central Placement, Records and Institutional Research, the NTID Admissions Office, alumni, and with each of the colleges so that better communication can be maintained. That’s just one of the ways in which we’re trying to make life—and learning—easier for students as they experience the educational process.”

Veterans Are Achievers

“Because our veterans are a little older and realize the value of an education, they undoubtedly try harder,” says Gene Clark, director of Veterans Affairs. “They have proven that one’s level of maturity and interest in self-development are key factors in successful completion of one’s goals. Our average veteran at RIT usually has the added responsibility of a family. With this, of course, comes the added financial pressure of maintaining a home and, more often than not, a full-time job. Because of the complexities of governmental regulations and benefit payment,” says Gene, “our veterans have become very dependent on our ability to service their needs. They come to the Office of Veterans Affairs for counseling, information, assistance with problems, tuition deferments, and just to say ‘Hello.’ We, for the most part, are all veterans and feel that having been there makes it easier for those who are to follow. Veterans helping veterans is the basis of our services.”

The Office of Veterans Affairs (OVA) is open daily from 8 a.m. until 8 p.m., Monday through Thursday, and until 4:30 p.m. on Friday. The OVA staff is comprised of the director, assistant director, program secretary, peer-counselors, and VA work-study students constantly handling inquiries and assisting veterans with VA related information. With their assistance, a veteran or dependent can be sure of a steady transition into and through the RIT educational experience.

“Successful contact with our veterans has proven that VA problems can be effectively dealt with before they have a negative impact on our vets,” maintains Clark. “We are concerned that many veterans and the dependents of deceased and disabled veterans are not utilizing their benefits. Benefit payment rates have been recently increased and the length of eligibility extended to 10 years for program completion.”

Gene is a U.S. Air Force veteran and presently serves as a commissioned cavalry officer with the U.S. National Guard. His degree in business administration combined with his military experience and expertise in veterans’ programs provide the background that enables him to successfully assist veterans and their dependents through the maze of veterans’ benefits.

Costs

Payment Procedure/The Estimated Quarterly Bill

Charges at RIT are computed on a quarterly basis. The Institute must receive payment in full for each quarter before registration will be allowed. Any preregistered student whose payment is not received by the due date will not be eligible to register until payment is received. Any non-preregistered student must attend Open Registration Day and make payment at that time. Payments sent by mail should be made by check, payable to Rochester Institute*of Technology. Due dates for the 1981-82 school year are as follows:

- Fall Qtr. Aug. 10, 1981
- Winter Qtr. Nov. 2, 1981
- Spring Qtr. Feb. 8, 1982
- Summer Qtr. May 3, 1982

The student should receive the Estimated Quarterly Billing Packet approximately two weeks prior to the quarterly due date. The packet will contain all the necessary information required to complete the Estimated Bill accurately and quickly. Upon receipt of the Institute’s copy of the Estimated Bill and the student’s payment in full, the Bursar’s Office will process the payment and clear the student for registration.

Students whose college costs are paid by the G.I. Benefit Plan or their employer are required to submit an Estimated Bill accompanied by the proper authorized form. Estimated Billing Packets will be mailed to the student’s permanent address, without exception. In addition, the Estimated Billers will be available at the Day College cashier’s window.

All billing information will be mailed to the student’s permanent address without exception.
Financial standing
Tuition and fees paid to the Institute cover approximately 60-70 percent of the actual expense of a student's education. The rest of the cost is borne by the Institute through income on its endowment and from the gifts of alumni and other friends.

Students, former students, and graduates are in good financial standing when their account is paid in full in the Bursar's Office. Any student whose account is not paid in full will not receive transcripts, diplomas or other forms of recognition or recommendation from the Institute.

The Institute reserves the right to change its prices without prior notice.

Tuition
The full-time (12-18 credit hours) undergraduate amount is $1,461 per quarter.

The part-time (less than 12 credit hours) tuition is $124 per quarter credit hour.

Any undergraduate carrying over 18 quarter credit hours will be charged $1,461 plus $124 for each credit hour over 18.

Please refer to the subsequent charts for more specific tuition information.

Other Fees
In addition to the fees outlined in the following charts, certain segments of students may incur other fees as follows:

- Residence Halls Association Fee—$5 per quarter charged to all residence hall students
- Off Campus Student Association Fee—$2 per quarter charged to all full-time undergraduates not living in the residence halls
- Photo Facilities Fee—$14 per quarter charged to all full-time photo students
- Student Medical Insurance Fee—$2 per quarter charged to all full-time students
- Late Registration Fee—A late registration fee of $25 is charged to any student who fails to register by the designated quarterly open registration day.

Deferred payment plan
For those students who are not able to pay the amount due by the designated due date, RIT has made arrangements for deferred payment through a local bank. For further information regarding this plan call the RIT Bursar's Office at (716) 475-6186.

Books and supplies
These vary widely with the program followed and to some extent the electives chosen. Those having minimal expenses (e.g., sciences, business) will average $130-$150; in the arts or crafts, this may be in the neighborhood of $500-$575; in photographic illustration or professional photography, a realistic allowance is $1,500 in addition to cameras (but in photographic sciences and photo finishing, expenses are minimal).

Additional Expenses
We can tell you what tuition, room and board, and fees will cost you. But estimates of personal expenses are up to the individual student. When estimating what you'll spend for a year at college, remember to count travel expenses, clothes, meals not counted in your board plan, and spending money. A typical full-time resident student would have the following academic year expenses:

- Tuition.................................$4,383
- Fees...........................................120
- Room ..................................1,299
- Board...................................1,296
- Books......................................300
- Personal ..................................630

Total $8,028

As indicated in the preceding paragraphs, expenses will vary according to individual circumstances. A detailed table of charges for tuition and fees according to program choice is found on the following page.

Based on three academic quarters, as freshman resident student †

<table>
<thead>
<tr>
<th>Department or Major</th>
<th>Tuition</th>
<th>Fees*</th>
<th>Room and Board</th>
<th>Total**</th>
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<td>$120</td>
<td>$2595</td>
<td>$7098</td>
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<td>120</td>
<td>2595</td>
<td>7098</td>
</tr>
<tr>
<td>Food Administration ................................</td>
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<tr>
<td>Art and Design ........................................</td>
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<td>2595</td>
<td>7098</td>
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<td>2595</td>
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<tr>
<td>Printing ................................................................</td>
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<td>120</td>
<td>2595</td>
<td>7098</td>
</tr>
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<td>Photography (including Photographic Science) ...</td>
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<td>Packaging Science ......................................</td>
<td>4383</td>
<td>120</td>
<td>2595</td>
<td>7098</td>
</tr>
</tbody>
</table>

† Rochester area students who live at home and commute to campus should substitute their own estimates for room and board.
* Does not include Orientation Fee.
†† Double Room and Board (20 meals per week).
### An Aid To Estimating Tuition, Fees

<table>
<thead>
<tr>
<th>College</th>
<th>School, Department or Program</th>
<th>Co-op</th>
<th>Year</th>
<th>Tuition Per Year</th>
<th>Fee</th>
<th>Total Per Year</th>
<th>Quarterly Payments*</th>
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<td>1st. Qtr. 2nd. Qtr. 3rd. Qtr.</td>
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<td>College of Applied Science and Technology</td>
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<td></td>
<td></td>
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<td>3, 4, 5</td>
<td></td>
<td></td>
<td>70</td>
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<tr>
<td></td>
<td>Engineering Technology</td>
<td>Yes</td>
<td>1 &amp; 2</td>
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<td></td>
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<tr>
<td></td>
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<td></td>
<td>70</td>
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<tr>
<td></td>
<td>Packaging Science</td>
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<td></td>
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<tr>
<td></td>
<td>Photo Marketing</td>
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<tr>
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<td>Electrical, Mechanical, Industrial, or Computer</td>
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<tr>
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<td>Engineering</td>
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<td></td>
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<td>Fine and Applied Arts</td>
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<td></td>
<td>Health Related Professions involving Clinical Science</td>
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<td>Counseling Center</td>
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</table>

Note: Books and supplies are not shown in the tables above, since they vary so much with each program. It is, however, essential that they be remembered in budgeting for upperclass years. This is especially true for students in arts and photography.

*Does not include Residence Halls Association Fee, Off Campus Student Association Fee, Orientation Fee or Medical Insurance Fee (optional).

*In cooperative programs, students pay tuition only for quarters at RIT; normally two per year in alternate quarters.

**Students in College of Business attend classes for 11 quarters over the 4-year program. Payments are due for quarters assigned to school, which may differ in time but not in quantity from above chart.

***If printing students elect to follow the voluntary cooperative plan, tuition is charged only for quarters at RIT. Any undergraduate carrying over 18 quarter credit hours will be charged regular tuition plus $124 for each quarter credit hour over 18. Tuition for part-time undergraduate students (carrying fewer than 12 quarter credit hours) is at the rate of $124 per quarter credit hour. Student Activity Fee is assessed at $5 per quarter.

Note: RIT matriculated day college students taking CCE courses will be charged the day college tuition rates. A graduation fee of $15 is payable at the beginning of the Spring Quarter of the year in which the student expects to receive an associate's or bachelor's degree. The graduation fee charge for those receiving a master's degree is $20, which also includes rental of the master's hood.
Refund Policies

Advance deposits are non-refundable.

The acceptable reasons for the withdrawal with refund during the quarter are:

For a full refund
1. Active military service: A student called to active military service during the first eight weeks of the term may receive a full tuition refund. If called after the eighth week, he may elect to complete the course by making special arrangements with both his instructor and department, or to withdraw and receive a full tuition refund. If he withdraws, he will have to repeat the course at a later date.
2. Academic reasons: Students sometimes register before grades for the previous quarter are available. If such a student later finds that he or she is subject to academic suspension, or has failed prerequisites, the student will be given a full refund upon withdrawal. It remains the student’s responsibility to contact his or her department to assure that the withdrawal form and refund are properly processed.

For a partial tuition refund
A student must officially withdraw or take a leave of absence from the Institute in order to be eligible for a partial tuition refund.

A partial refund will be made during the quarter if withdrawal/leave of absence is necessitated for one of the following reasons:
1. Illness, certified by the attending physician, causing excessive absence from classes.
2. Withdrawal for academic reasons at the request of the Institute during a quarter.
3. Transfer by employer, making class attendance impossible.
4. Withdrawal for academic or personal reasons at the request of the student, approved by the student’s advisor or department representative, the Institute Coordinator for Academic Advising and the Bursar.

These partial refunds will be made according to the following withdrawal schedule:

During the first week of classes—90%
During the second week of classes—75%
During the third week of classes—60%
During the fourth week of classes—50%
Fifth and subsequent weeks—No refund

A student is not “officially withdrawn” until he or she receives the student’s copy of the withdrawal form. The date on which a withdrawal form is properly completed shall be the date of “official withdrawal” used to determine the refundable amount.

If a student drops his or her course load from full-time (12 or more credits) to part-time (less than 12 credits) status during the official Drop Period, he or she may contact the Bursar for a refund based on the differential between the full-time tuition payments and the total per credit charge for the part-time load. Courses dropped after the official Drop Period will not result in a tuition refund.

Fees are not refundable.

Appeals Process
An official appeals process exists for those who feel that individual circumstances warrant exceptions from published policy. The initial inquiry in this process should be made to Richard B. Schonblom, bursar. Matters which cannot be resolved will be referred for further action to William J. Welch, controller.

Room and board*
To complete a withdrawal from RIT, a resident student or a non-resident student on a meal plan must check out with Housing and/or Food Service. Refunds, when granted, are from the date of official check-out.

Partial refund schedule:
1. Room
a) During the first week of classes 90% of unused room charge
b) During the second week of classes 75% of unused room charge
c) During the third week of classes 60% of unused room charge
d) During the fourth week of classes 50% of unused room charge
e) Fifth and subsequent weeks—No refund

2. Board
a) During the first four weeks, 75% of unused board charge
b) After the first four weeks, 50% of the unused board charge

* A specific rate schedule is available in the Housing Office.

Financial Aid

There are a variety of scholarships, loans, grants, fellowships, and other aid programs available to help you pay for your college education, and the best way to find out about them is to check with the RIT Student Financial Aid Office as soon as possible.

The main objective of the Student Financial Aid Office is to help students (including freshmen, transfer, upperclass, and graduate) and their parents plan for and meet the costs of attending RIT.

It is RIT’s philosophy that eligible students will be considered for financial assistance according to financial need. Normally this is arranged as a package of aid, consisting of scholarship, grant, loan, and/or employment in conjunction with outside scholarships and grants such as the New York State Tuition Assistance Program and Regents Scholarship, Pell Grant (formerly Basic Education Opportunity Grant), or other state and federal awards. Also, there is a full range of benefits available to eligible veterans attending RIT.

RIT’s cooperative programs offer participating students an opportunity to make a very significant contribution to their total college expenses in addition to the valuable experience gained on the job.

Additionally, through the Student Employment Office, there are many part-time positions available to help defray expenses. Those needing the income from full-time employment should consider attending RIT’s College of Continuing Education evenings.

Inquiries for all types of financial assistance should be directed to the RIT Office of Student Financial Aid, One Lomb Memorial Drive, P.O. Box 9887, Rochester, N.Y., 14623; phone (716)475-2186.

Scholarships
The RIT Board of Trustees has provided a scholarship fund from which general awards are made to entering freshman and transfer students. Other scholarships have been provided by the gifts of the alumni, friends, corporations, foundations, and the income from permanent funds.

Scholarships from these sources may vary in amounts from $100 to $3276. The amount of the scholarship and the recipients are determined on the basis of entrance examination data, high school and/
or previous college record, and the need for financial aid. These scholarships are one year scholarships. Students receiving scholarship aid may apply for renewal of their award each subsequent year. Entering freshmen may be eligible for awards if they rank in the upper 20 percent of their high school graduating class, while eligibility for enrolled and transfer students is contingent upon a cumulative grade point average of 3.00 through the winter quarter of the year prior to the one for which the award is requested. In each case the stipend is based on financial need.

A number of industry or business sponsored scholarships are available to entering students in specific departments. In some cases the scholarships are restricted to students from a particular geographic area. In general, scholarships of this type are for three to five years of study, and the student must maintain a specified academic average. Scholarships in this category vary in size from $300 to $4363.

**International Student Scholarship Fund**
The purpose of this scholarship is to assist international students attending RIT who qualify in meeting their educational obligations. A limited number of small scholarships are awarded annually winter quarter. Applicants must possess an F-1 visa, be full-time matriculated students and should not already be on a fully funded scholarship. To be eligible, applicants must also be in residence at RIT for three quarters if an undergraduate or one quarter if a graduate student and should not be a previous recipient of this scholarship. Awards are determined by the International Student Scholarship Committee. Criteria for selection includes academic performance with a G.P.A. of 2.8 and demonstrated financial need. For further information, visit the Office of International Student Affairs located on the second floor of the Administration Building.

**Tuition payment plans**
Monthly payment programs are available through a number of commercial banks and agencies. Inquiries regarding these programs should be directed to the RIT Student Financial Aid Office.

**Non-residents**
There are no additional charges or fees for RIT students coming from states other than New York State.

**To apply for aid**
To be considered for financial aid, a student should be enrolled as a full- or part-time student or have been offered admission as a full-time student.

Although applications for financial aid aren’t processed until a student has been accepted, a student shouldn’t wait until receiving notification of acceptance to file for financial aid. This should be done when applying to the Institute. Students are urged to file the Financial Aid Form with the College Scholarship Service between January 1 and March 1 of the year prior to entrance. Applications received in Princeton, after March 1 will receive secondary consideration depending upon the availability of funds.

The Financial Aid Form is the basic form used in determining eligibility for most financial aid programs. Completion of this form entitles an applicant to be considered for all types of financial aid offered through RIT. (In a few cases special applications are required and eligible applicants will be notified.)

The confidential statement forms published by the College Scholarship Service, may be obtained at local high school guidance offices, local colleges’ financial aid offices, RIT’s Financial Aid Office, or by writing directly to College Scholarship Service, Box 176, Princeton, New Jersey 08540.

Freshmen and transfer students can expect notification of financial aid awards by April 15, and upperclass students can expect award notification during May and June.

RIT awards financial assistance primarily on the basis of need. Financial need is defined as the difference between the cost of education and the amount of money that the student has available from outside resources. Outside resources include the expected parental contribution based on their income and assets, student’s assets and expected summer savings, outside grants, scholarships, and funds borrowed through the guaranteed student loan program.

**Selection and eligibility—Title IV Programs**
To be awarded financial aid, an individual must be admitted as a degree candidate. The student must be a matriculated student at the time he/she receives aid. RIT makes every effort to continue financial assistance to students each year provided they remain in good academic standing, file the required applications by the recommended deadlines, and financial need continues to be demonstrated.

A student is in good academic standing and is maintaining satisfactory progress if he/she has been accepted into a program of study (matriculated) and is currently enrolled in this institution.

Awards are based primarily on financial need and the availability of funds. Academic achievements and community involvement may also be considered. Renewal awards to upperclassmen may be increased or decreased and may be offered in different combinations of grant, loan and work.

**State Aid New York Tuition Assistance Program (For N.Y. Residents Only) (TAP)**
The tuition assistance program attempts to minimize the difference in cost normally found between New York Public and Independent Colleges so that students are able to make their choice based on a program characteristic alone and not the difference in cost. There is no competition for TAP support.

**Selection and eligibility for New York State Tuition Assistance Program**
In order for a student to receive Tuition Assistance Program Grant, an individual must be admitted as a full-time matriculated student, meet New York State income and residence requirements, must pursue the program of study in which he/she is enrolled and must make satisfactory progress towards completion of his/her program of study. Listed below are the approved standards of satisfactory progress for the Associate Degree and Baccalaureate Degree respectively.

**Responsibilities**
Recipients of financial aid from the Institute are responsible for reporting any significant changes in their financial situation during the year to the director of Financial Aid, who will review and may revise the applicant’s financial aid accordingly. Financial aid recipients are also expected to obtain summer employment to assist in financing their education.
Standard of Satisfactory Progress for the Purpose of Determining Eligibility for State Student Aid

**Baccalaureate Degree - Quarter System**

<table>
<thead>
<tr>
<th>Before Being Certified for This Payment</th>
<th>1st</th>
<th>2nd</th>
<th>3rd</th>
<th>4th</th>
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<th>14th</th>
<th>15th</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Student Must Have Accrued at Least This Many Credits</td>
<td>0</td>
<td>3</td>
<td>9</td>
<td>20</td>
<td>32</td>
<td>44</td>
<td>56</td>
<td>68</td>
<td>80</td>
<td>92</td>
<td>104</td>
<td>116</td>
<td>132</td>
<td>148</td>
<td>164</td>
</tr>
<tr>
<td>With at Least This Cumulative Grade Point Average</td>
<td>0</td>
<td>.50</td>
<td>.75</td>
<td>1.00</td>
<td>1.20</td>
<td>1.30</td>
<td>1.40</td>
<td>1.50</td>
<td>1.60</td>
<td>1.65</td>
<td>1.70</td>
<td>1.75</td>
<td>1.80</td>
<td>1.85</td>
<td>1.90</td>
</tr>
</tbody>
</table>

*Only students in the HEOP program at RIT are eligible for more than 12 quarters of undergraduate awards.*

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Standard of Satisfactory Progress for the Purpose of Determining Eligibility for State Student Aid

**Associate Degree - Quarter System**

<table>
<thead>
<tr>
<th>Before Being Certified for This Payment</th>
<th>1st</th>
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<tr>
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<td>1.40</td>
<td>1.60</td>
<td>1.80</td>
</tr>
</tbody>
</table>
### Financial Aid at a Glance

<table>
<thead>
<tr>
<th>Scholarship/Grant</th>
<th>Eligibility</th>
<th>Amounts</th>
<th>Where to apply</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Regents College Scholarship (New York State)</strong></td>
<td>New York State residents who plan to attend college and qualify through an examination in the senior year of high school.</td>
<td>$250 per year</td>
<td>N.Y.S. Higher Education Services Corp., 99 Washington Ave., Albany, N.Y. 12255</td>
</tr>
<tr>
<td><strong>Tuition Assistance Program (New York State)</strong></td>
<td>New York State residents who show ability to pursue full-time programs.</td>
<td>$200 to $2,200 per year</td>
<td>N.Y.S. Higher Education Services Corp., 99 Washington Ave., Albany, N.Y. 12255</td>
</tr>
<tr>
<td><strong>Regents Awards for Children of Deceased and Disabled Veterans (New York State)</strong></td>
<td>New York State Residents who are children of certain deceased and disabled veterans.</td>
<td>$450 per year</td>
<td>N.Y.S. Higher Education Services Corp., 99 Washington Ave., Albany, N.Y. 12255</td>
</tr>
<tr>
<td><strong>Pell Grant (Formerly Basic Educational Opportunity Grants) (Federal)</strong></td>
<td>Undergraduate students who are pursuing their first bachelor's degree, in financial need, attending post-secondary institutions.</td>
<td>$146 to $1,670 per year</td>
<td>File Financial Aid Form requesting submission to basic grant or file separate Basic Grant application.</td>
</tr>
<tr>
<td><strong>Supplemental Educational Opportunity Grants (Federal)</strong></td>
<td>Students of academic promise who are accepted for college study and who are in exceptional financial need.</td>
<td>$200 to $2,000 per year</td>
<td>Through RIT by use of the Financial Aid Form. File F.A.F. between Jan. 1 and Mar. 1 (prior to next year of attendance).</td>
</tr>
<tr>
<td><strong>War Orphans Educational Assistance (Federal)</strong></td>
<td>Children of certain deceased or disabled veterans.</td>
<td>Up to $220 per month</td>
<td>Veterans Administration.</td>
</tr>
<tr>
<td><strong>Social Security Education Assistance</strong></td>
<td>Children whose parent(s) is deceased or retired.</td>
<td>Amounts per month vary.</td>
<td>Social Security Administration.</td>
</tr>
<tr>
<td><strong>ROTC</strong></td>
<td>Students enrolled in ROTC and who are academically qualified.</td>
<td>Tuition, fees, books, and monthly stipend.</td>
<td>RIT Department of Military Science.</td>
</tr>
<tr>
<td><strong>Veterans Benefits</strong></td>
<td>Veterans.</td>
<td>Amounts per month vary upon full-time/part-time status and number of dependents.</td>
<td>RIT Veteran Affairs Office.</td>
</tr>
<tr>
<td><strong>RIT Scholarships and Grants</strong></td>
<td>Eligibility varies.</td>
<td>Amounts vary.</td>
<td>File Financial Aid Form between Jan. 1 and March 1 (prior to the next year of attendance).</td>
</tr>
<tr>
<td><strong>Higher Education Opportunities Program (HEOP)</strong></td>
<td>Economically and academically disadvantaged residents of New York State.</td>
<td>Amounts vary.</td>
<td>Director of HEOP at RIT.</td>
</tr>
<tr>
<td><strong>Other State Grants</strong></td>
<td>Eligibility varies.</td>
<td>Amounts vary.</td>
<td>Consult your state's education department.</td>
</tr>
</tbody>
</table>

### Student Loans

<table>
<thead>
<tr>
<th>Scholarship/Grant</th>
<th>Eligibility</th>
<th>Amounts</th>
<th>Where to apply</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New York State Higher Education Services Corporation Student Loan</strong></td>
<td>New York State residents in full- and part-time degree programs.</td>
<td>Undergraduates up to $2,500 per year if dependent; $3,000 if independent. Graduates up to $5,000 per year for master's degree students.</td>
<td>Most banks in New York State and N.Y.S. Higher Ed. Services Corp., Tower Bldg. Empire State Plaza Albany, N.Y. 12223</td>
</tr>
<tr>
<td><strong>National Direct Student Loans</strong></td>
<td>College students who meet financial need requirements established by Federal Government.</td>
<td>Up to $3,000 for first two years of undergraduate study. Maximum of $6,000 for four and five years of undergraduate study; $5,000 for graduate study.</td>
<td>Through RIT by use of the Financial Aid Form between Jan. 1 and March 1.</td>
</tr>
</tbody>
</table>

### Employment

<table>
<thead>
<tr>
<th>Scholarship/Grant</th>
<th>Eligibility</th>
<th>Amounts</th>
<th>Where to apply</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>College Work Study Program (Federal)</strong></td>
<td>College students in full- and part-time degree programs who meet financial need requirements established by Federal Government.</td>
<td>Varies, depending on hours and wage rate. Wages range from $3.35 to $4.95</td>
<td>Through RIT by use of the Financial Aid Form and through the Student Employment Office.</td>
</tr>
<tr>
<td><strong>Other college part-time work</strong></td>
<td>Considerable variation in kinds of positions, hours, and wages.</td>
<td></td>
<td>Consult other RIT publications and RIT Student Employment Office.</td>
</tr>
</tbody>
</table>
Admission Procedures and Services

Specific entrance data for each college is listed in a chart near the beginning of each college section in this bulletin. For each program, we have indicated the required high school subjects, desirable elective subjects and other factors considered by the Admissions Committee. We have also indicated minimum grade point averages required of students who are transferring from another college.

General information
Your high school or previous college record is usually the best predictor of success. If your high school rank is below the 50th percentile of your class, some other factors that could indicate a potential for success are: (1) better than average grades in the required high school subjects, (2) an improving record of achievement as you progressed through high school/college, (3) above average admission test scores, (4) graduation from a highly competitive high school where graduates are usually successful in college, and (5) post high school experience in service or employment that gives evidence of potential for success.

When applying for admission to RIT, one applies for a degree program in one of the individual colleges. However, there is opportunity for electing courses in other colleges as they meet personal goal objectives, and some programs are purposely designed for interdisciplinary experience. In general, serious thought about a career is assumed. Education is thus more direct, and graduates are eagerly sought for their professional competence.

To apply as a freshman student
To apply as a freshman student, you submit your completed undergraduate application and non-refundable $25 fee, official high school transcript and entrance examination scores. Applicants are required to have results of the Scholastic Aptitude Test (SAT) or the American College Test (ACT) submitted to the Admissions Office. Locations of test centers throughout the world, test dates, and application fee information can be obtained from your school or by writing to: College Entrance Examination Board, P. O. Box 592, Princeton, N. J. 08540, or P. O. Box 1025, Berkeley, Calif. 94701; The American College Testing Program, P. O. Box 414, Iowa City, Iowa 52243.

To apply as a transfer student
RIT welcomes transfer students. Currently, more than 45 percent of our students began their education at another college.

To apply as a transfer student, you submit your completed undergraduate application and nonrefundable $25 fee to the Admissions Office.

In addition, the following rules apply to transfers:
1. You do need to submit official transcripts of all college study completed.
2. Provide us with a list of the courses you are now taking not listed on your transcript, and any others you expect to complete prior to enrollment at RIT.
3. If your earlier study was outside New York State, send descriptive catalog(s) of previous study to the RIT Admissions Office with your name on inside cover(s), so we may give you full credit.
4. If you’ve already earned 16 or more college credits, submission of SAT or ACT test scores is optional.
5. If you’ve completed two or more years of college prior to enrollment at RIT, you do not need to submit your high school transcript.

All transfer applicants are responsible for insuring that required official transcripts and other documents have been received by the RIT Admissions Office.

Transfer credit
If you’ve completed studies at another college before coming to RIT, we’ll place you at the highest level at which your success in a program can reasonably be expected.

We’ll give you junior standing in most programs if you’ve earned an associate’s degree (AA, AS, and AAS) or equivalent in programs comparable to the RIT program you select. A cumulative average of “C” or better is required.

We’ll admit you to transfer adjustment study in the summer term to facilitate your transfer, particularly if you’ll be majoring in electrical engineering, art or photography. See applicable program descriptions in this bulletin.

If you’ve had only a small amount of college study or will be making a significant program change when you come to RIT, we’ll determine your transfer credit by an evaluation of individual courses in which you earned a “C” grade or better.

Admission will be based on our prediction of probable success in the RIT program of your choice.

RIT students who wish to take courses at other accredited institutions and receive transfer credit towards their RIT degree need to secure the prior written approval of the dean(s) of the RIT college(s) concerned in order to assure the appropriateness of the course content and course level for those courses.

Articulation Council
A coordinating council on two-year college/RIT articulation has been established to better serve students transferring from two-year colleges.

This council’s responsibilities are:
1) To act as a referral body to solve articulation problems. Although all articulation problems are within the scope of this body, articulation of an academic nature (e.g., transfer of courses) is of primary concern.
2) To make possible sufficient communications between the faculty, staff, and students of community colleges and the faculty, staff, and students at RIT. This communication includes mutual visitations as well as other activities.
3) To serve as a sounding board within the Institute and elsewhere to identify the implications of RIT-community/junior college relations. The purpose of this objective is to help insure two-year college students a smooth transfer to RIT.
4) To aid in the development and evaluation of research activities relating to two-year colleges.

Membership in the council includes the dean of each of the colleges or the dean’s appointed representative. In addition, Admissions, Students Affairs, ROTC, Financial Aid, Records, and other related administrative offices are represented. These members are familiar with the two-year college, its academic, fiscal, and administrative structures, its goals, philosophies, and types of courses and curriculum.

Credit by examination
RIT grants credit for satisfactory scores on examinations covering objectives and contents parallel to the RIT courses for which you seek credit. Usually these are CEEB Advanced Placement or College
Level Examinations, New York State Proficiency Examinations, or RIT-prepared examinations. Contact the director of Admissions for procedures.

Credit for non-traditional learning
Credit may be acquired through an evaluation of non-traditional studies or learning acquired from life experience. Requests for credits where no existing course at RIT matches the student's experiential learning should be directed to the Admissions Office.

Visit to campus
We encourage campus visits and personal interviews in order that you may see firsthand the modern 1,300 acre campus and be provided answers to questions you may have. A personal visit will further overall understanding of the Institute, what it has to offer academically and the many services that are available.

To arrange for a tour or counselor interview, simply call the Admissions Office, (716) 475-6631, Monday through Friday between 9 a.m. and 4:30 p.m.

Action on applications
RIT accepts students on a “rolling admission” basis. This means that applications are reviewed and decisions regarding acceptance are made within a few weeks after the application and supporting documents are received in the Office of Admissions. RIT begins accepting applications in September for the following September.

Because of this policy, and because many of RIT’s programs fill to capacity very early in the year, it, is to a student’s advantage to apply as early as possible for admission.

When all required information is received, you will be notified of one of the following actions:

1. Acceptance to your program of study. A transfer student will receive an evaluation showing credit granted and our estimate of time needed to complete your selected program.

2. Acceptance to program of study, but placed on a waiting list because available places in that curriculum have been filled. When vacancies occur, those judged to be the strongest candidates are selected from the waiting list. The probability of vacancies for those on the waiting list is not predictable. Those remaining on waiting lists will be considered for future entrance dates only if they specifically so request.

3. Deferral of action until more recent grades, test scores or other data requested are available.

RIT admits students without regard to race, color, sex, marital status, disability, or national or ethnic origin.

Early admissions
Occasionally a student will complete the prescribed number and adequate distribution of high school units in three years of high school with the exception of fourth year English and/or history. In such instances he/she may seek admission to RIT under the Early Admissions Program; i.e., without certification of high school graduation. If admitted, the student must fulfill the senior year high school course concurrently, and upon successful completion of the course, is then certified for high school graduation by the high school.

Physical examination
A physical examination is required. Submit your exam report on the form provided with your offer of admission before your first RIT registration.

Admission deposit
A $200 nonrefundable advanced acceptance of admission deposit reserves a place in your class and is credited to your first quarter’s tuition. The due date will be indicated with your offer of admission. For students entering in September, this is May 1, or within two weeks after acceptance, whichever is later.

International students
Students from countries outside the United States are extended a cordial welcome to study at RIT. Arthur Friedel handles International Student Admissions. He assists students from other lands with some of the normal difficulties they are apt to face in the admissions process.

The international community is well represented at RIT, with approximately 70 faculty and nearly 200 students from more than 55 countries.

RITISA, the International Student Association, is committed to providing support, assistance, and programming to the international students on campus. Working closely with a faculty/staff committee, the student group sponsors a special welcome and orientation, upperclass “brothers and sisters”, and activities throughout the academic year. An office designed to assist international students has been created in the Division of Student Affairs so that a centrally-located response will be made to the increasing numbers of students and the concerns they bring with them. The office will be working with immigration, housing, scholarship, orientation, academic and social needs.

Requirements for admission
include the satisfactory completion of secondary school, which may vary from country to country but generally represents 12 years of study.

International students should be prepared to meet all expenses in full, as employment opportunities are limited and student aid is rarely available.

The admission procedures apply in full. In addition, applicants whose native language is not English are required to submit scores from the Test of English as a Foreign Language (TOEFL) administered around the world by ETS, Princeton, New Jersey, U.S.A.

If not in English, all documents submitted must be accompanied by certified English translations.

If admitted and the financial statement is satisfactory, the student will be sent Form 1-20 for presentation to the American Consul in application for a “Non-Immigrant, ‘F’ Student Visa.” Foreign applicants must submit applications before May 1 to insure adequate time for processing their request for admission.
Registration and Student Records

Keep Track of You and Your Courses

The Department of Records and Institutional Research operates the systems in which courses are scheduled, students register and student academic records are maintained.

The scheduling process

The development of the quarterly course and exam schedule is coordinated by the Registrar’s Office in conjunction with the academic departments. The goal is to produce schedules that provide:

1. Effective utilization of resources (e.g., classrooms, instructors, time)
2. Equitable accessibility to courses and
3. Ample opportunity for normal progress toward degrees.

In short, course and examination schedules are directed at fulfilling curricular requirements while accommodating student interests.

The registration process

To be registered a student must

1. be scheduled into courses and
2. make a financial commitment.

Approximately two weeks into the Fall, Winter and Spring Quarters, a preregistration for the following quarter is conducted.

Preregistration for Fall Quarter is held during the Spring Quarter. For each quarter the Bursar’s Office establishes a due date for payment. See “Costs,” on p. 9 for due dates for the 1981-82 academic year.

A student who preregisters and makes satisfactory financial arrangements by the specified due date is considered registered and will receive a schedule of courses (program notice) in the mail before open registration. If the schedule is complete and correct, it is not necessary to attend open registration.

Open registration

Any student who does not receive a program notice in the mail or who wishes to add and/or drop courses listed on the program notice must come to open registration. Each entering student will be notified by mail of the date and hour of registration for his or her first quarter. Thereafter, students are responsible for consulting the Institute calendar for registration dates and times.

A student who has made schedule adjustments or registered initially at open registration must use his or her copy of the Change in Class Schedule Form as proof of registration for each class listed.

Financial commitment

After registration any student who has added courses but who has not made his or her financial commitment with the Bursar will be dropped from all courses during the second week of the quarter.

Late and non-matriculated day college student registration

Late registration and registration for non-matriculated students occur the day following open registration. Students who are not formally accepted into a program register as non-matriculated students.

Matriculated students who did not complete both steps in the registration process by the end of open registration must register late. Late matriculated day college registrants are subject to a $25 processing fee effective the day after Open Registration.

The record keeping process

Transcripts

The official academic record of each student is maintained in the Registrar’s Office. A transcript of his or her record can usually be obtained by a student within 48 hours after the request is submitted in writing. All courses registered for (excluding current quarter) and all grades received to date will be shown on the transcript. A student must be in good financial standing with the Institute before a transcript request will be processed.

During exam week and the week following exams, it may take more than 48 hours to prepare a complete transcript. The charge for each copy of a transcript is $2.

If a third party requests a transcript of your record, in most cases a written release from you must be submitted with the request. The Family Educational and Privacy Act of 1974 (commonly known as the Buckley Amendment) provides several exceptions to the release policy. For example, if your department requests your transcript for advising purposes, it will be released. If an employer requests a transcript, he or she will have to have a written request from you. For more detailed information concerning the Buckley Amendment, see the FACTS booklet.

Grade reports

Grade reports are prepared after the completion of each quarter. For Fall and Winter Quarters, day college, undergraduate students will receive their grade reports through their department mail folders. For Spring and Summer Quarters, all grade reports will be mailed directly to the permanent address.

Student retention

Based on a summary of the most recent cohort survival statistics, RIT’s student retention rate is 49 percent for students entering at the first year level and graduating four to five years later (the period between entry and graduation depending upon a student’s particular program of study).

Excluding part-time and non-degree students in the College of Continuing Education, 75 percent of first year full-time day students register for their second year; 79 percent of the second year students continue for their third year, and 83 percent of third year students continue through graduation (fourth or fifth year depending upon the program).

RIT is currently developing a comprehensive study of the progress of students, which would include factors to predict retention for all student populations such as those on cooperative education work blocks and the large number of part-time and non-degree students.

The statistics reported herein have been computed in a manner consistent with data reported to the State Education Department through the Institute’s Division of Records and Institutional Research.
The Steps Toward Earning Your Degree(s)

Rochester Institute of Technology stresses programs that lead to a high level of technical and professional competence. Programs of study are offered which lead to degrees at the associate, baccalaureate, and master’s levels. Certificate, diploma and associate’s degree programs are offered by the College of Continuing Education and the National Technical Institute for the Deaf. Eisenhower College offers the bachelor of arts (BA) degree. For information on these programs please refer to the individual college’s catalog or bulletin.

Associate degree programs
Upon successful completion of the requirements as indicated in the program outlines of the schools and departments, students can be awarded the associate in science or the associate in applied science degree in some programs.

Two associate’s degree programs are designed as terminal degrees. Biomedical Photographic Communications is both a two-year and a four-year program. The associate in applied science is awarded upon completion of two years of study, and graduates may seek employment with this degree or continue in upper division work toward the four-year bachelor of science degree. Chemical Technology is a three-year cooperative program, terminating with the associate in applied science degree.

Bachelor’s degree programs
Seven day colleges—Applied Science and Technology, Business, Engineering, Fine and Applied Arts, General Studies, Graphics Arts and Photography, and Science—offer four- or five-year programs leading to the BS, BFA or B. Tech. degrees, depending upon the curriculum. For full descriptions of individual programs see the following sections grouped by colleges. For bachelor’s degree programs in the College of Continuing Education please refer to its separate catalog. Programs offered through RIT’s Eisenhower College are described in that college’s separate bulletin, which is available from the Office of Admissions.

Graduate degree programs
The many programs leading to graduate degrees are fully described in the separate Graduate Bulletin, available from the Admissions Office.

Certification for degree
Upon completion of the stipulated requirements, a student’s academic department certifies him or her for a degree. A statement of requirement completion will be listed on the transcript in the appropriate term.

After commencement, a statement verifying that a degree has been awarded will be posted to the transcript. Degrees for fall, winter, and spring graduates are mailed during the Summer Quarter. Degrees for summer graduates are mailed during the Fall Quarter.

Grading system
Grades representing the students’ progress in each of the courses for which they are registered are given on a grade report form at the end of each quarter of attendance.

The letter grades are as follows:
A - Excellent
B - Good
C - Satisfactory
D - Minimum Passing
E - Conditional Failure
F - Failure
I - Incomplete
R - Registered
S - Satisfactory (non-credit)
W - Withdrawn
Z - Audit

A grade of "W" will be assigned in courses from which a student withdraws after the second week of classes or if a student withdraws from all courses in a given quarter. A student can change from credit to audit or from audit to credit status for a course only during the first 10 days of classes.

The grade of T is assigned for transfer credit awarded for courses taken at an accredited institution and receiving a grade of "C" or above, and are deemed applicable to an undergraduate student’s program.

An X grade indicates successful completion of an external or Institute examination, provided such examination covers or parallels the objectives and content of the indicated course. Credit must be assigned in advance of any credit received through registration for the indicated course.

For exact policy and procedural statements on the above see the Educational Policy and Procedures Manual available in the Student Affairs Office or on reserve in the Wallace Memorial Library.

Quality points
Each course has credit hour value based upon the number of hours per week in class, laboratory or studio, and the amount of outside work expected of the student.

Each letter grade yields quality points per credit hour as follows:
A - 4 quality points
B - 3 quality points
C - 2 quality points
D - 1 quality point
E and F count as 0 in computing grade point average (G.P.A.). R, W, Z, S, X and I grades are not used in computing G.P.A.

The grade point average is computed by the following formula:
G.P.A. = \frac{Total \ quality \ points \ earned}{Total \ hours}

Academic probation and suspension policy
Matriculated undergraduate full-time and part-time degree students will be placed on probation or suspended from the Institute according to the criteria enumerated herein. All actions are taken at the end of the quarter, however, a student may petition the dean of the college for reconsideration of probation or suspension should the removal of an incomplete grade (I) raise the appropriate Grade Point Average above those stated below. Each matriculated student will generate three different grade point averages. The Institute average reflects all course work completed at RIT. The Program average reflects course work completed at RIT applicable to graduation in a student’s current academic program. The current academic program refers to the Institute and college degree course requirements specified by the degree granting college and noted in the Institute catalog. The third average, in the Principal Field of Study, reflects course work completed in a student’s specialized field of study.
1. Any student whose Program Quarterly Grade Point Average falls below a 2.00* or whose Cumulative Grade Point Average in the principal field of study** (based upon at least 20 credit hours attempted in the principal field at RIT) falls below 2.00 will be placed on probation.

2. Any student who has been placed on probation according to (1) above is removed from probation for achievement of both a 2.00 Program Quarterly Grade Point Average and a 2.00 Cumulative Grade Point Average in the principal field of study, based upon at least 20 credit hours attempted in the principal field at RIT.

3. Any student who is on probation according to (1) above and who is not removed from probation in the two succeeding periods of study in which credit is earned, will be suspended from RIT for a period of not less than one quarter.

4. Any student who has been placed on probation after having been removed from probation and whose Program Cumulative Grade Point Average is below 2.00 will be suspended. Any student who has been placed on probation after having been removed from probation and whose Program Cumulative Grade Point Average is 2.00 or above will be granted one quarter to be removed from probation or he/she will be suspended from RIT.

5. Any student whose Program Quarterly Grade Point Average falls below 1.00 will be suspended from RIT.

6. Any student who has been readmitted to his or her original program, after having been suspended, and then goes on probation will be suspended from RIT.

7. A suspended student may not enroll in any academic course at the Institute while on suspension. When there is evidence that the student's scholastic problems are the result of inappropriate program choice, or other extenuating circumstances, the suspension may be waived or the student may be admitted to another program or allowed to take courses on a non-matriculated basis if it is approved by the dean of the college in which the enrollment is required.

In evaluating the request for waiver of suspension, the dean may seek the recommendation of the Counseling Center as to the appropriateness of the program for the career goals of the student under consideration.

8. A student may apply to the Office of Admissions for re-admission at the end of his suspension. His re-admission must be approved by the dean of the college he wishes to attend upon his return (this may be his original college or another).

Disciplinary probation
Students are expected to conduct themselves at all times in such a way as to reflect credit on themselves and the Institute. Any student guilty of flagrant violation of good conduct may be warned, placed on probation, or in serious cases, dismissed from the Institute.

Class attendance and other rules
Students are expected to fulfill the attendance requirements of their individual classes. Rules and regulations relating to conduct in the residence halls and use of general campus facilities are issued directly by the appropriate offices of the Institute and published in the student handbook.

It is the responsibility of all students to attend their scheduled classes regularly and punctually in order to promote their progress and to maintain conditions conducive to effective learning.

Absences for whatever reason do not relieve students of responsibility for fulfilling normal requirements in any course. In particular, it is the students' responsibility to make individual arrangements in advance of missing class due to personal obligations such as religious holidays, job interviews, athletic contests, etc., in order that they may meet their obligations without penalty for missing class.

Attendance at Saturday classes may be required. The Institute reserves the right to alter any of its courses at any time.

What you’ll Need For Graduation

The following general requirements apply to students who are candidates for an undergraduate degree.

Certificates and diplomas
1. Satisfactorily meet the program requirements of the College.

Associate’s and baccalaureate degrees
1. Successfully complete all required courses of the Institute and a college, including cooperative employment where applicable.

2. Full payment or satisfactory adjustment of all financial obligations.

3. A minimum of 45 quarter credit hours shall be successfully completed in residence at the Institute in the college granting the degree (inclusive of service courses). If the student has successfully completed 45 quarter credit hours in residence he or she may petition the dean to study 15 quarter credit hours in absentia in the final year of the degree; a minimum 30 of the final 45 quarter credit hours are to be completed in residence.

4. A program grade point average of 2.00.

5. Minimum number of quarter credit hours as required by that college, but in no case shall this be less than 90 quarter credit hours for the associate's degree and 180 quarter credit hours for the baccalaureate degree.


7. Demonstrate competence in writing skills as established in the Institute's writing policies.

Writing policy
The writing policy of Rochester Institute of Technology is meant to insure that each graduate develops sufficient skill in the use of the English language to function as an educated member of society and to meet any special demands for written communication likely to be placed upon him in his intended career.

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**"C" Average

"The principal field of study is defined to be all courses within the college offering the program. For the Computer Engineering, Packaging, Criminal Justice, Social Work and Printing Systems Management programs, programs within the College of Continuing Education and NTID, and new interdisciplinary programs the appropriate professional courses will be identified (and so indicated in official publications) as being part of the principal field of study.
Students must demonstrate that they have the writing skills needed for successful entry into their chosen careers. At least three academic quarters before the student’s anticipated completion of baccalaureate degree requirements, the departmental faculty will determine whether the student has met departmental writing standards. A full description of these standards and certification procedures is available from each department. Students whose writing does not meet these standards will have to take the appropriate remedial measures recommended by the department. Beginning in September, 1980, students who entered the Institute in Fall 1978 or later must meet the departmental writing standards before they can graduate. The nature and standards of departmental writing requirements will be consistent with Institute policy and will be reviewed by the Institute Writing Committee.

For the master’s degree
See separate Graduate Bulletin, available from the Admissions Office.

Commencement
Candidates for the Institute’s certificates, diplomas, associate, baccalaureate and masters degrees are expected to attend commencement ceremonies. Candidates may be excused from such attendance with the explicit approval of their dean.

Student Affairs Offers Services
For Help In and Out of Classroom

What happens in the classroom is a big part of a college education. But what happens outside the classroom can be almost as important.

The Division of Student Affairs at RIT coordinates many services provided to students during their years at college.

The division includes Physical Education, Intercollegiate Athletics, Residence Life, Student Health Services, Student Activities, International Student Affairs, College-Alumni Union, Religious Activities and the Chaplaincy, Counseling Center, Learning Development Center, Higher Education Opportunity Program (HEOP), Orientation and Special Programs, Upward Bound, Special Services, Judicial Affairs and Horton Child Care Center.

Life on campus is a living, as well as a learning, experience. Students, with the counseling of trained resident staffs, have their own governing organizations and develop social programs. A wide variety of athletic, social and professional activities is available for all students.

Complementary Education
Viewed as a necessary dimension of the student’s education at RIT, Complementary Education formally recognizes and encourages important experiences that happen outside the classroom that complete and enhance the traditional academic activities of the institute. Its essential aim is to further the professional development of students by aiding the colleges in establishing programs within the context of their own curricula. It will supplement their curricula in four broad content areas—personal and social development, learning skill development, civic competence, and leisure and avocational skills.

Complementary Education is multi-faceted. The Complementary Education Grants Program makes funds available to students, faculty and staff who want to develop unique kinds of experiences. These projects are not credit-bearing, but formal recognition that describes what was learned is offered. In addition, the Complementary Education faculty will welcome first-year students and meet with these freshmen in small groups to provide information about RIT and positive first impressions of the campus. They continue to be resource people throughout the first year.

Three programming efforts are being added that further emphasize our belief in experiential education. The Outdoor Education, Community Services, and Educational Travel programs will offer unique opportunities beyond the campus for RIT students. Each of these activities offers formal learning before the event takes place and evaluation and sharing of the experience. Students will have the chance to expand their learning environment.

Certification also is given to nonfunded projects already under way that involve students in extended activities that do not entail academic credit. Such documentation is valuable to students in developing their employment placement credentials.

Complementary Education also sponsors the Institute Forum, a year-long series of nationally known speakers, that focuses each year on a different topic related to the quality of life and our society.
Learning Development Services

Extra Help for Those Who Need it: HEOP

"Basically, what we’re doing is making it possible for disadvantaged students to come to college. Without HEOP, these students wouldn’t have been offered acceptance to RIT."

Charles Hetzel speaks with pride about RIT’s Higher Education Opportunity Program, of which he is director.

“The students in the program not only have financial difficulty, but also have not excelled in school,” he explains. “However, it’s had nothing to do with academic potential. They’ve had problems historically with lack of encouragement from guidance counselors, poor schools, younger sisters and brothers to take care of, time-consuming jobs—any number of things. It’s not that these students aren’t college material, it’s just that they’re underprepared.

“HEOP’s responsibility is to help them to reach and maintain academic competence.”

Many of the students who are in RIT’s HEOP are deficient in essential math and verbal skills. But they’re competing with students who have been nurtured in supportive environments and have graduated from competitive schools. Professors are rarely aware that a student is in HEOP.

“We’re kind of a mini-student services department,” Hetzel says. “We make acceptance and financial aid decisions, provide remedial instruction and tutoring, and do personal, academic and career counseling. At the same time, our students have complete access to all of RIT’s student services.”

The HEOP staff which consists of Hetzel, an assistant director, two counselors and a remedial specialist, maintains an open-door policy. “We have to be especially sensitive to the needs and problems of the disadvantaged student,” stresses Hetzel, who holds master’s degrees in urban education and reading. “Each student is really conversant with the student’s problems. And the counselors are always available should an academic or social difficulty arise.”

Each student who is admitted to the program as a freshman must enter a five-week pre-freshman program conducted the first summer. “They take math and remedial reading as necessary. But everyone has to take Introduction to Psychology, which prepares them for the real thing. The instructor tries to incorporate different facets of a college course, such as a research paper, a personal opinion paper, and different types of tests. Students learn to use the library, organize a paper, and read a textbook effectively. The instructor also comments on individual behavior, allowing us to pinpoint individual problems, such as poor attendance, or lack of assertiveness.”

In the eight years of its existence, HEOP has graduated 100 students, many of whom have landed excellent jobs. Graduates in technical fields have the highest success rate, according to Hetzel. “It’s not quite as easy for a social worker right now. But the fact that these students have graduated from college, considering their initial academic weaknesses, is a tremendous accomplishment.”

Every student admitted into HEOP must be both academically and financially disadvantaged. They are all provided with full financial support, which is provided jointly by RIT and state and federal money. Up to a year’s supplemental grant is available to any student who may need extra time to complete his or her program of study.

International Student Affairs

The Office of International Student Affairs is a resource center for students on visas or those who seek cross-cultural learning. The office provides assistance with immigration regulations and travel documents, and coordinates various aspects of campus life which support academic and personal growth including cross-cultural programming. The staff works closely with RITISA, the international student organization, and serves as a liaison with off-campus groups who seek to extend friendship to international students. The office is located in the Administration Building, second floor, in the Learning Development Center. Phone 475-6682 for more information.

International Student Emergency Loan Fund

The purpose of this loan fund is to provide emergency financial assistance to international students on visas. Loans cannot exceed $200 and must be repaid in two months. Students applying must have a good track record of payment with the Bursar and must not have any outstanding debt to the emergency loan fund. For further information, visit the Office of International Student Affairs.

Learning Development Center

RIT students have a unique opportunity to improve their reading efficiency, study techniques, vocabulary mastery, effective listening and critical thinking abilities, mathematical understandings, computation skills, writing competence, and general facility in the uses of the English language through individual or group instruction provided by the center. There is also instruction for students who speak English as their non-native language. In addition, the center makes arrangements for peer tutoring in most college level courses. Special programs, built around students’ requests, are provided for student groups and clubs as well. In cooperation with the Counseling Center, the Learning Development Center also provides counsel, diagnosis, and corrective development background instruction for students not working up to capacity or whose achievement records are unsatisfactory because of needs in basic academic areas.

Consultation, testing, and instructional services are free to all RIT students with the exception of some ESOL (English For Speakers of Other Languages) instruction.
A Place for Students to Learn How to Learn

Educational troubleshooters is how the director describes himself and his faculty.

“We usually work with individuals on a short-term basis to correct a specific learning problem,” says Paul Kazmierski, director of the Learning Development Center. LDC is beginning its third decade of operation as an academic support service to RIT students, faculty and the Rochester community. Known by many alumni and friends of the Institute as the Reading and Study Clinic, the center officially adopted its new name in 1974.

“Our subject here really is ‘learning about learning’ and we wanted our name to reflect that scope,” explains Dr. Kazmierski.

The new name fits especially well with the center’s expanding efforts in faculty development. When the center began operation on the RIT campus in the 1950s, RIT was just moving toward offering degree programs. At that time skill development for students became especially critical and faculty was involved at the center in student referrals and some shared teaching. In the future, LDC hopes to see more interfacing with faculty to improve instruction.

“We will be spending more time on process education,” predicts Dr. Kazmierski. (Process education includes the skills, systems and methods of learning, exclusive of specific content.)

“We feel that it is important that RIT students become more active participants in the learning process—not passive recipients of a service,” says Irene Payne, associate director of the College Program. “It is important for students to become more knowledgeable and analytical about their own learning. In our interactions with students, we guide them to explore their own approaches to learning, evaluate them and develop appropriate strategies for life-long learning.”

Students seeking the services of the Learning Development Center have various options. The center offers each quarter a variety of different courses in reading, writing, ESOL, and listening skills plus a series of study skills mini workshops. A student can request an appointment with one of the learning specialists on the faculty for a personal interview to diagnose skill needs and plan an individualized course of action which would lead to more efficient learning for the student. The center also maintains labs for reading, writing, ESOL and mathematics where students can get help with a specific problem, pursue a longer course of study or just practice skills.

During the 1980-81 school year, the Learning Development Center saw more than 3,000 RIT students. The current LDC faculty consists of 10 full-time members and several part-time instructors. The center also trains students to assist in a number of programs.

No "typical" student uses the Learning Development Center, according to the director, who cited several examples of students with widely different interests, needs, and grade point averages. People with "A" averages enroll as readily as students who are failing.

The center has developed two programs geared especially for students who are failing or who anticipate difficulty gaining entrance to college: the College Anticipation Program and the College Restoration Program. Both programs are highly structured and require students to attend classes approximately six hours a day, five days a week, for the academic term.

Although the majority of LDC’s work is centered on the RIT students and faculty, the center’s services are well known throughout the Rochester community. Educational institutions, businesses and industries refer clients to the center for diagnostic evaluation, classes or individual instruction. Forty-two adjunct faculty have augmented the efforts of the 10 full-time faculty in delivering instruction to more than 830 community clients during the past year. In addition, the center has conducted training workshops for organizations in Rochester and across the nation.

Full-time programs

Student’s acceptance in the Learning Development Center’s full-time programs is determined after a review of academic records, an interview, and diagnostic testing. After having been accepted into a program, the student is classified as an RIT Special Student and an individual program is planned to meet the student’s needs.

The student is enrolled in a block of LDC laboratories, classes and workshops. Individual tutoring is arranged as needed. One or more credit courses from the Institute’s regular offerings may be part of the program. Selection of these courses is under the guidance of the Learning Development Center.

College Anticipation Program: Helping the Student to Prepare

The College Anticipation Program is designed for the college-bound high school graduate who desires further skill development before matriculating in a full college program.

Diagnostic testing includes measurements of aptitude, interest, achievement and personality. Once the educational diagnosis has been analyzed, and it has been determined that the College Anticipation Program is appropriate for the student, an individual program is designed.

This program generally includes a content course*, LDC instruction and academic counseling. The work is based upon a system of established deadlines and immediate evaluation of progress. Participation in the program cannot guarantee that a student will be admitted to the college or university of his or her choice; however, professional resumes of student achievement in the program are sent to colleges upon request of the student.

*Students must have permission from departments offering credit courses.
**The College Restoration Program: Helping the Student to Come Back**

The College Restoration Program is a specialized program of instruction for students who have been suspended from college. A course of action can be recommended only after the reason for academic difficulty has been established. If after diagnostic testing, which includes measures of aptitude, interest, achievement and personality, it is determined that CRP can be helpful, a very structured program, including content courses*, LDC instruction and counseling is arranged. The student meets weekly with an academic advisor to clarify directions and goals, to discuss relationships between the skills courses and the content courses and to review progress. The student is also provided the opportunity to discuss problems, their causes and effects, with an RIT counselor at the Counseling Center if he or she desires.

The entire program is designed to strengthen the student’s self-motivation, self-discipline, and self-confidence. Successful completion of this program should qualify students for readmission to the college or department of their choice or for entrance to another educational program.

Although the College Restoration Program does not guarantee a participant readmission to his or her former college or status as a transfer student at another school, the center does provide recommendations and resumes of student achievement in the program to colleges upon request by the student.

**ESOL (English to Speakers of Other Languages) Program**

The Learning Development Center offers three separate packages for full-time study of the English language. Classes include pronunciation, conversation, grammar, writing, reading, TOEFL preparation, English for Printers, and English for academic purposes.

Arrangements may also be made to receive individual instruction and to work in the language lab. A fee is charged for these services. Students may come to the ESOL writing lab during scheduled hours free of charge. Here students will receive help with assignments, learn to edit their work and review English grammar.

Before a specific package is selected, each student is tested to determine the level of his or her English skills and to diagnose specific needs.

All packages conform to National Association for Foreign Student Affairs (NAFSA) guidelines and meet immigration requirements of 1-20 student status.

The characteristics of the three packages are as follows:

**Intensive Study**
- for students with beginning to intermediate English skills
- 15 hours class or individual study
- 10 hours language and/or writing lab

**Semi-intensive study**
- for students with intermediate to advanced English skills
- 5 hours language and/or writing lab.
- 4 hour credit course*

**Support Study**
- for students with Advanced English skills
- 4-5 hours of class or individual instruction
- optional language/writing lab
- 8 hours credit courses*

For more information about Learning Development Center services contact the center at 475-6682 (Eastman Memorial Building, second floor, north wing).

**Counseling Center**

Career and personal counseling, developmental programming, consultation, training, testing and research comprise the Counseling Center functions for RIT students, faculty, and staff. “Any student may see a counselor promptly without charge in our facilities in Grace Watson Hall for assistance in solving a personal issue or in clarifying career plans,” states Dr. Catherine Steel, director of the Counseling Center. Dr. Steel further emphasizes that all counseling information is strictly confidential and will be released only when appropriate and when the written permission of the student is obtained.

**Counseling—Personal:** While at RIT most students encounter personal problems. At times they may feel anxious, depressed, have difficulties with friends, feel concerned about courses or professors, have questions about sex, be concerned about relationships with parents, or simply have a need to talk with someone in confidence. Talking with one of the nine professionally trained college counselors or joining a counseling group can help students deal with such problems.

**Counseling—Career:**

For any student who is uncertain of his or her career choice, college major, or career goals, the center provides a variety of services and programs. The counselor can help the student explore the relationships between previous experiences, interests, abilities and values in arriving at realistic career goals. Tests of interests, aptitudes and personality are available to provide more data to aid in self-understanding. The Career Resource Center contains a microfiche file of all college catalogs, reference books with information describing career fields, information about undergraduate and graduate schools, and self-help materials to assist with decision making. SIGI, a computer-based guidance system, is available to help individuals examine career related values, to teach a systematic process for making decisions, to identify occupational fields that match the student’s value profile, and to provide accurate, current, national information on approximately 175 different occupational fields.

**Developmental Programs:**

Throughout the academic year the Counseling Center offers a series of workshops and seminars on various aspects of personal and career development. Examples of recent programs include: assertiveness training, stress management, dealing with life transitions, and career exploration.

**Student Life Research:**

For more than 10 years the center has been gathering data about incoming students in such areas as perceptions of college life, personal and social characteristics, self-esteem, and career development. Additional research has focused on the campus environment, residence halls, and the needs of various student populations. Information obtained through these research efforts is communicated throughout the Institute in the publication titled Inputs.
Community Services:
Although the Counseling Center’s primary effort is focused on the RIT campus, it has been known in the upstate New York area for the career counseling, testing and consulting services offered over the past 40 years to industry and individuals not associated with the Institute.

The center is an accredited member of the International Association of Counseling Services and adheres to the ethics of the American Psychological Association and the American Personnel and Guidance Association.

The Office of Special Services—
Student Support Program

The “non-traditional” student at RIT may encounter special problems or need special assistance. The goal of the Office of Special Services is to provide the necessary academic and non-academic support that will enable students to realize fully their potential and to complete successfully their chosen college program.

Special Services provides individual and group tutoring, study skills development, academic advisement and reading/writing skills development. Also offered are individual and group counseling, some specialized assistance for handicapped students (i.e., readers, tapers, orientation) advocacy and liaison with other campus and community resources. Some of the activities featured are:

Career Forums—a series of student conducted workshops facilitated by professionals working in fields of study offered at RIT. Program includes site visits to area industries and complexes.

Achievement Awards Program—an annual dinner to give recognition to and award students for academic or social achievement and to honor graduating members of the program.

Leadership Seminar—a summer component of Special Services in which student leadership potential is enhanced and developed through training workshops, mentorship and practical application.

The Office of Special Services is also designed, in part, to provide support services to physically handicapped students at RIT.

Support services include tutoring and additional academic support, counseling, career development, special programs and referral resources in the community. The staff strives to assist students resolve educational and noneducational problems that are related to academic success such as gaining accessibility to elevators and helping students secure specially designed instructional materials or programs.

Information regarding any issues relating to barriers—physical or academic—will be provided, and appropriate referrals can be made.

Contact the office at 475-2832 or 2833. (It is located in Grace Watson Hall (wheelchair or orthopedically limited students may use the Campus Safety entrance.)

The Office of Special Services is federally funded under the Office of Education. Eligibility for the program is determined by financial need, physical disability or handicap, or first generation college status. Any student who is a citizen of the United States and meets one of the eligibility requirements may become a member of Special Services.

Foremost, the staff provides personal concern for and attention to each student enrolled.

For more information about the Office of Special Services, call 475-2832/2833.

Student Health Service

The Student Health Service is on campus to help you make decisions concerning your health, to provide counseling regarding health and medical matters, to treat health problems, to make referrals to consultants in specialized fields, if necessary, and to provide health education programs.

All medical information is strictly confidential and will not be released without your consent. Exceptions to this rule are made only when reports are required by the public health laws of New York State. Students should submit the Medical History and Evaluation Form, as current, complete and honest background medical information is important for us to render proper care.

The health team at Student Health Service consists of primary care physicians, nurse practitioners, registered nurses, consulting psychiatrists, and a gynecologist. Professional personnel oriented to the needs of the deaf are included on the staff. Students are seen on a walk-in basis between 8:30 a.m. and 4 p.m., Monday through Friday. Between 4 and 4:30 p.m. only, emergency care is provided. From 4:30 to 11 p.m., Monday through Friday, emergency care is provided in the residence halls by a registered nurse.

Self-care programs, such as a Cold Care Center, are being instituted. This center is located in the residence halls, where students can learn about colds and determine proper treatment.

Health Insurance

Expenses for hospital care, consultations, X-rays, and laboratory tests are the responsibility of the individual student. Due to the high cost of such services, it is imperative every student be covered by some sort of health insurance.

A brochure describing benefits of an Institute-sponsored plan is mailed to each student prior to registration. All students are automatically enrolled and billed unless a written refusal and proof of alternate insurance is provided to the bursar.

Student Housing

The Residence Halls

The Department of Residence Life provides a living environment for approximately 6,000 students in residence halls or apartments. The Department of Residence Life, part of the Division of Student Affairs, has as its primary goal the development of a residential setting consistent with the overall educational philosophy of the Institute.

RIT recognizes the significant effect the on-campus living environment has on the social, academic, educational, and overall development of the student. The aim of the Residence Life Department is to create a positive environment to promote this development.

All first-year students are required to live in the residence halls, except those who live with their families. Resident students enrolled in cooperative employment programs are charged only for the period of occupancy. Each student is required to sign a Room and Board Request and Assignment Form, which is included with the housing information mailing.

Students cannot be guaranteed accommodations in the residence halls for more than one year due to current demand for housing. Whenever housing projections increase...
indicate the need to do so, a number of upperclass students are required to vacate the residence halls to provide adequate space for new students. Most students leaving the residence halls can be accommodated in apartments near the campus. RIT realizes that the student body is not homogeneous and that students have diverse interests, backgrounds, experiences, needs and maturity. In recognition of this, a variety of living options is available. Many residence areas are coeducational; men and women live on the same floor. Many Greek organizations (fraternities and sororities) have their own houses. There are also academic houses in art, business, computer science, engineering, and photography; International House for both international and American students; and Unity House, which emphasizes the development of the black culture.

Most residence hall units have double rooms only, although some units do include a limited number of single rooms. These single rooms are not available to entering students. During fall quarter some entering students may be assigned to triple rooms.

All corridors and rooms are carpeted. A bed, desk, chair, dresser, closet, and window covering are provided for each student in a room. Each corridor in the unit has its own bathroom, equipped with showers. Some suites are available, composed of three bedrooms connected to a common bathroom. Each house has its own lounge furnished for study and relaxation. Coin-operated laundry facilities are available in the basement.

Each student is furnished with information on residence hall living by the Department of Residence Life after he or she is accepted. All residence hall students must participate in one of the Institute board plans. The charges for residency and meals are included in the section on student expenses.

Apartment Housing
Apartment housing is available to single or married undergraduate and graduate students and to a limited number of faculty and staff in Institute owned or leased apartments and townhouses. A mixture consisting of each housing group can be found in each apartment complex on campus. All Institute apartments are located less than a mile and a half from the center of campus and are serviced by RIT’s shuttle bus system. A brochure describing the four complexes—Colony Manor, Perkins Green, Riverknoll, and Racquet Club—is available from the Office of Off-Campus and Apartment Life, One Lomb Memorial Drive, P.O. Box 9887, Rochester, N.Y., 14623; (716) 475-6921.

Off-Campus Housing
The Office of Off-Campus and Apartment Life provides an Off-Campus Center that strives to meet the needs of off-campus students by providing a variety of services and programs. The center maintains up-to-date listings of available rooms, apartments, and houses in the Rochester area and operates a Roommate Locator Service to help students find compatible roommates. The Off-Campus Center is located in the Residence Life Office and is open Monday through Friday from 8:30 a.m. to 5 p.m.

Orientation and Special Programs
In the summer and fall of each year, RIT provides freshmen and transfer students with orientation programs to help familiarize them with their new environment. These programs include academic advisement, tours, faculty/staff interaction, parents sessions and social events. The summer orientation programs consist of four sessions (two for freshmen and two for transfer students) that deal mainly with academics, pre-registration, and support services offered by the Institute. The fall program concentrates on promoting student interaction and building a sense of community. It has been shown that a student will receive the greatest benefit if he/she is able to participate in both the summer and fall programs.

During the Orientation process, students are given a copy of FACTS, a student handbook that contains RIT policies, procedures and helpful survival hints.

Off-campus students are encouraged to live in the residence halls during the summer program to experience residence life for two days and attend special workshops geared to meet their needs as off-campus students.

Special programs also have been developed for married students, international students and resident students.

The Special Programs aspect of the office is reflected in its function as a resource area for married students and off-campus and transfer students. This includes working on an on-going basis with the representative student groups for the population.

Because half of the student population resides off campus, RIT has an active Off Campus Student Association (OCSA) and a Married Student Organization (MSO) (married students make up one third of the off-campus population). Both groups have achieved some gains in improving out-of-classroom opportunities for their constituents.

The (MSO) offers social activities, children’s activities, and represents the concerns of married students to the RIT administration. Members find that this interaction helps them make the transition to RIT and helps their spouses feel more a part of the total community.

Student committees of the OCSA explore academic concerns, social activities, resident/off-campus relations, transportation, and communications. OCSA also provides a ride board to help commuters coordinate car pools. If off-campus students want to stay on campus for just one or two nights, there are guest rooms in Greek houses to accommodate them. Quarter contracts are available for the off-campus student who wants to experience dormitory living when space is available. Lockers have been installed in the lower level of the College-Alumni Union so off-campus students have a place to put their belongings while attending class. They may register for a locker in the Off Campus Student Office.

The Off Campus Student Council, started in 1978, represents constituents from the various colleges of RIT and local apartment complexes.

Those interested in becoming members of OCSA or MSO should call 475-2334 or stop by the OCSA/MSO Lounge. The Off Campus/Married Student Lounge is located in the lower level of the College-Alumni Union. The Off Campus Student Association and the Married Student Organization offices are also located in the lounge area.

Many of the activities for residents and off-campus students aim to bring the two groups together. “Each group can learn from the other,” says Ann Hayes, director of Orientation and Special Programs. “The off-campus student knows the city and can invite the resident into a home occasionally. The resident student may know the campus better.” An off-campus student host program has been started to encourage off-campus students to invite residents to their homes.
during the holidays and quarter breaks. The Residence Halls Association and the Off Campus Student Association also host the winter quarter live-in as a follow up to Orientation.

RIT's Counseling Center serves about an equal number of resident and off-campus students. Dr. Richard Marchand, one of the counselors, finds that the problems of the two groups are similar, but believes those of off-campus students are sometimes exacerbated by the tension of living with parents or spouse.

Recognizing that the situations of off-campus students aren't unique to RIT, Hayes comments, "We work to encourage more interaction between off-campus and resident students, and to increase the involvement of off-campus students in campus activities."

New student orientation
All new Fall Quarter students (freshman and transfer) are required to pay the Orientation Fee of $35. The four- to five-day program is designed to welcome the new student to the RIT community and its services. Orientation includes department meetings, registration, tours, seminars, lectures and various social events.

Student Directorate
The Student Directorate is the governing body for students. It represents the student population by working with RIT administration, faculty and staff to communicate the needs and desires of the student body and to communicate the decisions of the administration to the students. It pulls together the student body to formulate and express student opinion and the Student Directorate, RIT Student Directorate through payment of the Student Activities Fee. Part-time, non-matriculated, or graduate students may become members of the Student Directorate if they wish to participate in student-sponsored activities by paying the Student Activities Fee.

College-Alumni Union
The College-Alumni Union, a primary focal point at the main entrance to the academic plaza, is designed specifically to service events sponsored by and for the entire campus community—students, faculty, administrative groups, alumni and guests. A staff is available to assist and advise the various individuals and groups in planning and coordinating their activities. In addition, a complete information service is located in the main foyer.

The three-level facility, the center of co-curricular activities, features the 525-seat Ingle Auditorium; a self-service bookstore; a complete gameroom for bowling, billiards, foosball, and electronic games; a unisex hairstyling salon; a candy and tobacco counter; three separate dining areas comprised of the main cafeteria, the Ritskellar, and the Clark Dining Room; meeting rooms and lounges. In addition to offices for the staff, there are the offices of Career Education, Special Events, Student Affairs, Orientation, Committee on Education, College Activities Board, Student Directorate, WITR radio station, Student Television Systems, Techmila, Reporter, Off-Campus Student Association, and other student organization offices.

The College Activities Board
The College Activities Board, composed of students, faculty and College-Alumni Union staff representatives, is responsible for providing a balanced program of activities that reflect and enhance the special social, cultural, recreational and educational needs of the campus community.

Social events
Major social events on the activities calendar include Fall Weekend, Brick Daze, Homecoming, and Winter Weekend. Many other dances, parties, speakers and events are sponsored by the College Activities Board, the Residence Hall Association, the Greek Council, special interest clubs of many kinds, and department and professional associations such as Alpha Chi Sigma, Delta Lambda Epsilon, Delta Sigma Pi, and Sigma Pi Sigma. Two national sororities and nine national fraternities offer social activities and promote high scholastic and social standards among members.

Student professional associations
A number of national technical associations have student affiliate chapters on the RIT campus. Frequently sponsored by parent chapters in Rochester, these societies play an important part in Institute life by bringing together students who have common interests in special subjects. The associations are both professional and social in purpose.

Student publications
RIT students produce some of the most exciting publications in the country. The Student Activities Fee helps to finance most student publications, distributed to all full-time students.

The Reporter is published by students weekly, except during examinations and holidays, and serves as the student news magazine.

Techmila, the student yearbook, contains a student-edited pictorial and written description of student life at the Institute during the year. The Reporter and Techmila have consistently won state and national awards. An activities calendar is issued quarterly.

A student handbook is issued early in the year, as a cooperative effort of students and staff. This includes the student directory listing addresses, telephone numbers, and other information about students. This becomes a handy year-long reference of activities and people.

These publications draw their talented staffs—artists, photographers, writers, managers, and printers—from the entire student body.

Religious activities
The religious program is voluntary, active and enlightened, designed to minister to the varieties of religious faith in a responsible, attractive manner among future-oriented students. Chaplains representing the three major religious groupings maintain offices on the campus. They are available for pastoral counseling, advisory work, teaching, and sacramental ministries. There is a regular schedule of religious services on campus. Churches in the area have shown interest in establishing relations with students, and transportation to and from services may be arranged.

Hillel Foundation, Catholic Campus Ministry, and Lutheran Campus Ministry have local branches on campus, and other religious organizations are welcome to use the facilities in the College-Alumni Union. Representatives of these campus organizations form the RIT Office of Campus Ministry.

The Black Awareness Coordinating Committee
The Black Awareness Coordinating Committee is organized to foster an awareness of the role of black men and women in the total society, and to create a greater understanding among the black students at RIT. Each year the committee sponsors various social and cultural programs which are designed to achieve these objectives.
The learning experiences provided through the Physical Education curriculum are an integral part of the total educational experiences and student life activities at RIT. The program consists of a large array of courses designed and developed to meet the growing needs of students. The focus of the curriculum is to help students develop and maintain fitness, to acquire physical skills in a variety of lifetime activities, and to provide principles and elements for utilizing free time in an enjoyable and constructive manner.

The required courses at RIT are built on the premise that the attainment of good health and fitness are basic elements in the “pursuit of excellence” in many aspects of RIT campus life. The department also offers an Adapted Physical Education Program for handicapped students. The program consists of an array of developmental activities suited to the needs, interests and capacities of students with disabilities who may not be able to participate safely in the general physical education program. Various recreational programs are also offered to the handicapped population in selected individual, dual and team activities. Additional information in regard to these programs can be obtained from the Physical Education Department.

The curriculum is offered during all academic quarters, including the summer. Registration for classes is conducted in the main gymnasium at designated times following academic registration. The courses available include:

- Aerobic Dancing
- Afro-Carribean Dance
- Archery
- Army Conditioning Drills
- Badminton
- Ballroom Dance
- Basketball
- Basketball Officiating
- Bicycling
- Billiards
- Bowling
- Canoeing
- Care and Prevention of Athletic Injuries
- Conditioning (Women)
- Conditioning (Men)
- Cross Country Skiing
- CPR - Multi-Media First Aid
- Dance Performance I & II
- Disco-Swing Dancing
- Diving
- Emergency Medical Treatment
- Fencing
- Field Hockey
- First Aid (Advanced)
- Frisbee
- Fishing
- Fitness For Life
- Golf
- Horseback Riding (English)
- Horseback Riding (Western)
- Hunting
- Hunting (predator)
- Ice Fishing
- Ice Hockey
- Ice Skating
- Jogging
- Judo
- Juggling
- Karate
- Kung Fu
- Lacrosse
- Life Saving
- Modern Dance
- Outdoor Living
- Racquetball
- R.O.T.C. Rangers
- Scuba Diving (Beginning)
- Scuba Diving (Advanced)
- Self Defense For Women
- Skeet and Trap (Beginning)
- Skeet and Trap (Advanced)
- Skiing (Downhill)
- Soccer
- Softball
- Swimming
- Swimming For Fitness
- Tennis
- Touch Football
- Volleyball
- Volleyball/Softball
- Water Polo
- Water Safety Instruction
- Weight Training
- Yoga

A nominal fee is charged in some courses requiring specialized instruction and/or facilities.

Note:
Courses listed represent those offered during the school year. Not all courses are offered every quarter. Consult the Physical Education Office for quarterly courses.

Requirements for Degrees

For the Baccalaureate Degree
All candidates for the baccalaureate degree enrolled through the day colleges must successfully complete six quarters, or the equivalent of two years, of physical education. This requirement is normally met during the first and second year of matriculation, but may be done at any time.

For the Associate’s Degree
All candidates for the associate’s degree enrolled through the day colleges are required to successfully complete three quarters, or the equivalent of one year, of physical education. This requirement is normally met during the first year of matriculation, but may be done anytime.

Transfer students
All students who transfer to RIT from other colleges or universities also must comply with the physical education requirements for the associate’s or baccalaureate degree, either at RIT or as transferable credit.

Transfer students who have earned an associate’s degree from another institution and who are required to complete a work-study assignment, are required to complete only three quarters, or the equivalent of one year, of physical education at RIT.

Intramurals and Recreation

The intramural program is attractive and very popular. The activities offered include basketball, volleyball, softball, ice hockey, flag football, swimming and horseshoes. Information on scheduling and registration dates will be posted and announced.

All indoor and outdoor recreational facilities are available to students for informal, leisure endeavors during scheduled periods throughout the academic year. Outdoor facilities include a 25-yard swimming pool, wrestling room, ice rink, two gymnasiums, bowling alleys, game and billboard room and the exercise and fitness center. Outdoor facilities feature 12 tennis courts, all-weather track, fields for softball, flag football, soccer and field hockey, baseball and lacrosse. Daily facility hours for recreation are posted in the physical education building and any changes to the schedule will be posted on the reservation board in the lobby of the gymnasium.

Locker facilities are available and may be rented upon payment of a locker gym pass fee.
Intercollegiate Athletics

At RIT, intercollegiate athletics is an integral part of the total educational environment. Participation on a team or as a spectator greatly enhances campus spirit and student life.

The Institute recently announced plans to upgrade its intercollegiate athletics program, citing several sports for special emphasis. Among these are men’s hockey, basketball, soccer and lacrosse. Increased emphasis is also being placed on women’s sports.

RIT offers intercollegiate competition during fall, winter and spring seasons. In the fall, the Institute competes in men’s cross country and soccer. Women’s competition is offered in volleyball and tennis. Winter activities feature hockey, basketball, swimming and wrestling for men and swimming and hockey for women. In the spring, men’s teams compete in baseball, track, tennis and lacrosse. Women’s sports feature softball and track.

RIT’s teams, known as the Tigers, are members of the National Collegiate Athletic Association (NCAA), Independent College Athletic Conference (ICAC), Association of Intercollegiate Athletics for Women (AIAW), United States Intercollegiate Lacrosse Association (USILA) and New York State College Hockey Association (NYSCHA). The ICAC, RIT’s prime conference of competition, includes Alfred, Clarkson, Hobart, Ithaca, Rensselaer Polytechnic Institute, St. Lawrence and RIT.

With the exception of men’s hockey, all teams compete in Division III of the NCAA, ECAC and AIAW. Hockey has been elevated to Division II of the ECAC.

Eligibility for intercollegiate competition is governed by NCAA, ECAC and AIAW rules. A student must be full-time (minimum 12 quarter hours of credit) and making satisfactory progress toward a baccalaureate degree.

Throughout the years, Tiger teams have experienced continued success within the conference and nationally. RIT has won numerous conference titles and boasts more than 30 All-Americans.

Information regarding intercollegiate athletics is available through the department (475-2614) or by contacting the sports information office (475-6154). The “Tiger Hotline,” in operation throughout the year, offers daily information on schedules and results of intercollegiate competition. Dial 475-6180.

We invite you to “Experience the Tiger Spirit,” and follow the teams throughout the year.

Resources for RIT
Community Living

Day Care
The Horton Child Care Center is a preschool and kindergarten for children of students, faculty and staff at RIT. It is located in Riverknoll housing, adjacent to the academic buildings. The center offers all-day and half-day programs for children ages 2 years 9 months through 5 and has an after-school care program for children ages 6-8. It is open all four academic quarters. The summer quarter has a day camp format and is open to children 2 years 9 months through 8. Some tuition aid is available.

Inquiries and application can be made by writing the Director, Horton Child Care Center, 85 Kimball Drive, Rochester, NY 14623, (716) 424-1244.

Identification Card
All day students and evening students (CCE) are required to have an official Institute Identification Card. Your card must be carried with you at all times, and lost reported at once, to the I.D. Office, 475-2125.

All I.D. cards must be validated quarterly. Replacement of lost cards is $5.

Automobile registration
Those students having automobiles on campus must register these vehicles with the Campus Safety Department at the time they first register for classes, or upon bringing the automobile onto campus for the first time. Failure to register a vehicle to be parked on campus will result in a $10 fine for the initial parking infraction. Fines are $5 and $10 and if unpaid, or not otherwise reconciled, are automatically charged to students’ accounts.

Campus Safety Department
There is a professional security and safety staff on duty 24 hours a day, all of whom are Institute employees. While this staff constantly patrols all campus areas, RIT does not assume liability for lost or stolen personal effects of students, faculty or staff. We therefore urge you to maintain an insurance policy on your own or through your family insurance program for personal property casualty experiences away from home.

For on-campus emergencies requiring immediate medical, firefighting, or law enforcement attention, call emergency telephone number 475-3333. For routine matters call 475-2853.

Textbooks and supplies
Textbooks, school supplies, art and design supplies, and photographic supplies and equipment may be purchased at the RIT bookstore. Also in stock are general reading material and monogrammed items. An estimate of expenses likely to be incurred in a specific area of study may be obtained by contacting departmental offices. The major portion of the expenditures for textbooks and supplies is made at the beginning of each quarter (see also “Books and Supplies” on page 10).
Alumni Association

The RIT Alumni Association is an organization of more than 40,000 graduates and former students of the Institute. All graduates are automatically members.

The objectives of the association are to advance the growth and development of RIT through individual and group endeavors within industry and the community; to foster beneficial relationships among alumni, students and the Institute; and to encourage outstanding academic and extracurricular achievement by the undergraduates.

There are a number of services available to alumni, including a travel program to destinations throughout the world, a semi-monthly publication for alumni, free use of the library and athletic facilities (with ID card), help from the Central Placement Office in locating a job, and many social events, including Homecoming.

There are also many programs within which alumni work with the Institute's various departments. These include admissions, placement, and alumni-student interaction programs. Alumni in many metropolitan areas throughout the country participate in activities of service to the Institute. The Institute recognizes the value of its alumni and places a strong emphasis on their participation in planning for the future.

Under the direction of the Alumni Affairs Office, alumni may assist the financial development of the Institute by giving to the RIT Alumni Fund. This fund provides needed support for the operations of the Institute.

The Office of Alumni Relations, located on the fourth floor of the George Eastman Building, is the center of alumni activity on campus. The office maintains the alumni records, assists in conducting the business of the association, and serves as the communications center and clearinghouse for all alumni activities. Alumni are always welcome at this office.

Educational Support and Development Seeks To Improve Quality of Learning

The Educational Support and Development Division is made up of three areas whose goal it is to improve the quality and effectiveness of learning and instruction at RIT by providing a full scope of media-related resources.

Specific functions of the areas include: instructional, -curriculum, and faculty development projects (Office of Instructional Development); provision and production of audiovisual instructional materials and the provision of equipment, facilities and assistance required by faculty and students in their use (Instructional Media Services); and selecting, distributing, and providing bibliographic services for the instructional use of existing printed materials (Wallace Memorial Library).

Instructional Media Services

Reno Antonietti, Director

Instructional Media Services provides a complete range of audiovisual support services to faculty and students. IMS consists of a television center, production services, audiovisual distribution services and a Media Resource Center.

Television

This center is utilized as both a distribution system for delivery of instructional media to locations throughout the campus and as a production system to create both black and white and color programming. A professional staff of producer/directors and graphic artists and engineers are available to aid faculty in the development of programs ranging from complete courses to short modules for use within a course. The center has a wide variety of video cameras and recorders including portable units for remote location programs and fully equipped color studios. Thus, flexibility is available to meet the instructional needs of the Institute. Several videotape formats are available ranging from two-inch broadcast to half-inch and three-quarter-inch videocassette.

The television center provides distribution of programming over a cable system that reaches academic, administrative and residence areas. A master antenna system is operated in conjunction with the closed-circuit system to provide local broadcast stations (TV and radio) to faculty and students. The center also maintains a large library of videotapes on a wide variety of subjects and has access to videotape libraries throughout the country.

Production services

A professional staff of producer/directors, designers, artists and photographers are available to assist faculty in creating instructional media. The services are at two levels:

1. General services to meet the daily routine needs of faculty and students and
2. Producer services to aid the faculty in the development of more sophisticated mediated instruction.

In addition, consultation and advisement is provided in the selection, purchase and use of television, photography, cinematography, animation, graphics and audio.

Audiovisual distribution services

Faculty and students are provided access to the large number of instructional materials available from sources throughout the country. Research assistance is provided to search out and recommend the best of these materials. Equipment and projectionist services are also available as well as the loan of a variety of audiovisual hardware.
Media Resource Center
This center, located just inside the library entrance on the main floor, contains a variety of nonprint media and audiovisual equipment for individual student use. In addition, the center contains an outstanding collection of over 75,000 slides as well as viewing facilities for the collection of approximately 600 motion picture prints. Videocassette playback equipment is also available for individual use.

Instructional Development works to improve instruction
Lawrence W. Belle, Director

Instructional Development’s primary goal is to search out and implement ways of improving the overall process of instruction at RIT. This is approached through cooperative planning, design, implementation, and evaluation of a variety of learning systems appropriate to the Institute.

Through the Institute’s Committee on Projects Relating to Productivity, Instructional Development provides support for all approved projects designed to improve the quality of undergraduate instruction. Part of this support includes helping applicants prepare projects before they are funded and assisting in their implementation.

In support of the Committee for Effective Teaching, Instructional Development participates in faculty development programs and also provides academic counseling at the personal request of a faculty member. The office also provides individual consultation to faculty members interested in such areas as: the specification of course objectives, test measurement, evaluation techniques, and visualized instruction.

Wallace Memorial Library
Gary MacMillan, Director

Information comes in many forms other than printed pages bound between two covers. When a student wants to research a topic at RIT’s Wallace Memorial Library, he or she will not only find a variety of print and nonprint forms in which to locate information but also a unique on-line computer catalog where the search for references may be made.

Particularly adapted to an institution of technology and the arts and sciences, the Wallace Memorial Library contains, in addition to material in the usual form of books, magazines, newspapers and pamphlets, material in the form of microfilm, microfiche, motion pictures, recordings, audio and video cassettes, slide/tapes and filmstrips. RIT has the largest microfilm collection and the greatest use of nonprint media of any area college library reports Gary MacMillan, library director.

The library is a true multi-media learning center with expanded services and innovative procedures to increase its usefulness. To assist the students in the use of all these resources, reference librarians are on duty during the week and on weekends. Located throughout the three floors of the library are more than 900 student study stations, including individual study carrels and group study rooms.

During the year student work in art and photography is exhibited in display gallery areas. Outstanding student art work is permanently displayed within the building. And there are several lounge areas throughout.

The library contains a special collection of materials on the deaf to serve the National Technical Institute for the Deaf and to support research by anyone wishing to pursue studies in the problems of deafness. A Special Collections area houses the Archives, rare books, faculty writings and RIT theses.

The regular hours for the library are: Monday - Thursday, 8 a.m. - 11 p.m.; Friday, 8 a.m. - 9 p.m.; Saturday, 9 a.m. - 6 p.m.; Sunday, noon - 11 p.m. Special hours for exam time, breaks, and holidays are posted and publicized.

“We’re a pretty advanced library, technologically speaking,” MacMillan says. “Books are losing some of their importance and other media are taking over... there’s a growing awareness here that there are other ways to get information than from the printed word,” he emphasizes.

And so, Wallace Memorial Library has phased out the traditional card catalog in favor of both a microfiche system and an on-line catalog of its holdings. “The entire card catalog can now be held in a notebook,” MacMillan says. “or can be searched from any computer terminal.

“A library doesn’t mean just books anymore,” he says. “It’s a collection of information kept in the way that’s easiest to retrieve.”
Career Decision Program

The Career Decision Program is offered through the Counseling Center and has been designed to provide RIT students with the opportunity for a structured career guidance experience as they choose or change a specific program of study.

Although many students entering RIT have chosen their career with a degree of certainty, others may have made their choices more tentatively. The Career Decision Program addresses the needs of those Students whose initial choice of major was found to be inappropriate, whose academic record justifies their continuation at the Institute, and whose priorities include a reassessment of career direction.

Program Design

The program provides enrollment to selected students for up to three quarters and includes the following elements:
1) Intensive career/academic advisement during a period of exploration and choice;
2) Opportunity to sample preferred course work across as many as three majors before narrowing to a single field of concentration;
3) Continuation of financial aid for students receiving assistance (since the program carries the benefits of full matriculation for the student carrying a minimum of 12 credit hours);
4) Participation in a three-credit career exploration laboratory which addresses self-awareness, decision making, researching careers and field of study, and action planning. Following their participation in the program, students typically have developed an educational/vocational plan and have identified appropriate next steps toward implementing that plan. Those next steps might include enrolling in one of RIT’s programs, applying to another college or university for a program not offered at RIT, or preparing for a career that does not require a college degree.

Application Procedures

Candidates for the Career Decision Program may apply by filling out a Change of Program application form with their home college advisor, and submitting their academic folder to the Career Decision Program coordinator for review. An interview is usually required, following which the application is reviewed and notification regarding acceptance is provided.

Since enrollment is limited and sufficient time is required for a thorough assessment of a student’s situation, it is advisable to apply as early in the quarter as possible for the coming quarter. Interviews can be arranged by calling:
Laura Cann, Career Decision Program Coordinator
RIT Counseling Center
475-2261
College of Applied Science
And Technology

Dennis C. Nystrom, Dean

Organized in 1973, the College of Applied Science and Technology is the ninth of 10 colleges within the administrative framework of Rochester Institute of Technology. It incorporates the School of Engineering Technology, the School of Computer Science and Technology, the Department of Packaging Science, the Department of Instructional Technology, and the Department of Career and Human Resource Development.

Both the School of Engineering Technology and the School of Computer Science and Technology have expanded rapidly to include additional curricula designed to meet their original objectives. At the same time, they have established close relationships with many two-year colleges. By so doing, they can build upon the curricula of the associate’s degree granting institutions and supply faculty in those areas of technical and professional education where a demonstrated need exists. In fact, the School of Engineering Technology is upper division only and accepts graduates of appropriate associate degree programs.

The Department of Packaging Science offers courses leading to the bachelor of science degree in packaging science. This department draws heavily upon courses offered in other schools and colleges of the Institute. With the addition of several packaging science courses, the broadly-developed curriculum is representative of the areas of knowledge that are basic to the packaging science industry.

The School of Computer Science and Technology—an existing program since 1971—became a department of the College of Applied Science and Technology in June 1973 and a school in the same college in July 1976. This school is also closely related to the two-year colleges and has an active upper-division component besides offering the freshmen and sophomore years.

The Department of Instructional Technology offers both upper-division work in audiovisual communications and graduate programs in instructional technology. The audiovisual curriculum serves graduates of the two-year colleges and upon completion of an additional two years leads to the bachelor of science degree.

Resources
Since CAST is geared toward programs of practical application, it is necessary that well-planned laboratory facilities be made available to students in upper division and graduate courses.

The college utilizes some of the finest facilities and equipment available. The packaging science laboratories, the computer science facilities and equipment, and the instructional technology laboratory have all seen additional equipment installed. The School of Engineering Technology’s sharing of facilities with the College of Engineering allows the use of the most modern and sophisticated equipment in the engineering technology curricula. The added availability of remote terminals feeding into the Sigma 9 computer (and others) gives the student a maximum opportunity to utilize computers in his or her curriculum.

Memberships
CAST holds institutional membership in the American Association of Community and Junior Colleges.

Acceptance of the associate’s degree
The School of Engineering Technology and the Department of Instructional Technology (Audiovisual Communications) function as upper-division units only. Holders of an appropriate associate’s degree from a community, junior, or technical college (or other similar two-year institutions) will receive full credit for those curricula leading to the bachelor’s degree.

Engineer Technology students may receive the engineering technology B. Tech in three years of additional study in the cooperative education program.

Audiovisual Communications’ transfers may receive the BS degree with two additional years of study.

The School of Computer Science and Technology and the department of Packaging Science admit students into the upper division years and accept the associate degree at full value if the associate degree is obtained in a computer related program or a packaging science program, respectively. They also conduct a four-year curriculum into which high school graduates are admitted.

Faculty
Members of the professional staff have had considerable experience in the industrial field and/or teaching in two-year and four-year colleges, and have completed graduate programs in the various fields of their specialties.

Program planning
Each student in CAST is considered individually when his or her program is planned. The diversity of subject background from the two-year colleges necessitates an almost tailor-made pattern of courses for the individual. In this process, students can be assured of building upon previous courses and knowledge of their particular field, assuring that their associate’s degrees retain the integrity they deserve, and guaranteeing, as far as possible, that previously studied material will not be repeated.

Admission at a Glance:

General Information on RIT’s admission requirements, procedures and services is included in detail on pages 16-17 of this Bulletin.

College of Applied Science and Technology Programs
The College of Applied Science and Technology prepares students for a world of rapidly expanding technological applications. The programs reflect RIT’s goal of offering students relevant, career-oriented programs that lead to rewarding employment.

The college includes the Department of Instructional Technology, the School of Engineering Technology, the School of Computer Science and Technology, and the Department of Packaging Science.

Computer Science: General computer science, prepares graduates to enter employment as research programmers or enter graduate schools for specialized training. The Applied Software Science option is designed to prepare students to enter employment as applied software specialists, applications programmers, or research programmers. Degrees granted: AAS-2 year; B. Tech.-4-5 year.

Computer Technology: The Computer Systems option is oriented to prepare management, systems analysts, information systems designers, and business applications programmers. Systems application area is selected from the other RIT programs. The Systems Software option is designed to prepare systems programmers or systems software specialists. Any relevant curriculum at RIT may be chosen as minor study. Degrees granted: AAS-2 year; B. Tech.-4-5 year.
Computer Engineering: A program jointly offered with the Department of Electrical Engineering. Oriented to prepare students in hardware design, interface, and process control. Degree granted: BS-5 year with co-op.

Packaging Science: The three options-management, design or technical-prepare students for initial employment in such areas as management, sales, marketing, purchasing, graphic design, structural design, product development, and the technical and engineering phases of production. Degree granted: BS-4 year.

‘Civil Engineering Technology: This program offers two options-environmental controls, and construction. The environmental option places emphasis on water and wastewater treatment and pollution abatement. The construction option is oriented toward building construction and construction management. Degree granted: B. Tech.-3 year with co-op.

‘Electrical Engineering Technology: Early emphasis in this program is on further mastery in circuit theory and materials for design and mathematics. Later courses are elective options in electrical power, communications, and digital computer design. Degree granted: B. Tech.-3 year with co-op.

‘Mechanical Engineering Technology: Early emphasis in this program is on further mastery of mechanics, electricity, and mathematics. Later courses are elective options in either manufacturing or mechanical design. The practical and applied are emphasized. Degree granted: B. Tech.-3 year with co-op.

‘Manufacturing Engineering Technology: A program to prepare persons to apply sophisticated techniques to production processes. Courses will emphasize computer aided manufacturing, productivity, and the related activities required to enter this increasing complex field. Degree granted: B. Tech.-3 year with co-op.

‘Energy Technology: A program to prepare specialists in the field of residential, commercial and industrial energy management and control. Degree granted: B. Tech. 3 years with co-op.

‘Audiovisual Communication*: Prepares students with production/design abilities in using various media. The graduate becomes a communications specialist, a producer or production manager or an advisor to trainers and faculty members. Degree granted: BS-2 year.

‘Upper Division only.

Freshman Admission Requirements

<table>
<thead>
<tr>
<th>Program</th>
<th>Freshman Admission Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer Systems</td>
<td>Data processing, business, or equivalent computer technology</td>
</tr>
<tr>
<td>Systems</td>
<td>2.25</td>
</tr>
<tr>
<td>Software Science</td>
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<tr>
<td>Applied</td>
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<tr>
<td>Science</td>
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<tr>
<td>Computer Science</td>
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<td>Packaging Science</td>
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<tr>
<td>Civil Engineering Technology</td>
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<tr>
<td>Manufacturing Engineering Technology</td>
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<tr>
<td>Energy Technology</td>
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<tr>
<td>Audiovisual Communications</td>
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Transfer Admission with Junior standing

<table>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
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<tr>
<td>Computer Systems</td>
<td>Data processing, business, or equivalent computer technology</td>
</tr>
<tr>
<td>Systems</td>
<td>2.25</td>
</tr>
<tr>
<td>Software Science</td>
<td></td>
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<tr>
<td>Applied</td>
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<tr>
<td>Science</td>
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<td>Computer Science</td>
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<td>Packaging Science</td>
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<td>Civil Engineering Technology</td>
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<td>Energy Technology</td>
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<tr>
<td>Audiovisual Communications</td>
<td></td>
</tr>
</tbody>
</table>

All options include electives in social science, literature and humanities.

*Four years of English are required in all programs, except where state requirements differ.
with little fanfare, the use of audiovisual materials for training, for public relations, and for presentations has grown markedly. What was previously unusual in training-slide/tape training packages, multi-image presentations, audio and video cassettes—is now the commonplace. Behind the scenes is a core of professional audiovisual specialists who translate ideas into media. While the growth of the field brings a need for specialists in particular medium such as photography, television, or filmmaking, there is a demand for the audiovisual generalist who can work in a variety of media and manage the production process from client need to finished product.

Now RIT’s Audiovisual Communications program in the Department of Instructional Technology is specifically designed to expand and improve the skills of graduates of two year (associate’s degree) programs in audiovisual media. It is an upper division transfer program leading to a bachelor of science degree after two years of study. For the first time graduates of two-year colleges can transfer into a four-year college without changing their major field.

RIT’s Audiovisual Communications program is thus an important steppingstone to better job opportunities or to further graduate study in this exciting and dynamic field. It is also one of only a few programs in the nation offering a baccalaureate degree in this field. It is innovative in concept, pragmatic in its approach, and emphasizes a strong career orientation for its students.

Objectives
The primary objectives of the BS program in audiovisual communications are to prepare fully qualified individuals for professional employment as audiovisual communications specialists. This rapidly growing field is concerned with effectively and efficiently transmitting information by using systematically designed audiovisual materials. The bachelor of science program is concerned with training professionals in the rigorous process of designing and producing audiovisual products in specific training situations. By requiring core courses in each of the three areas, and permitting electives from a wide range of courses, a high degree of individualization is accomplished. Course requirements may be adjusted to meet individual needs through student/faculty advisement.

Admission requirements
The two-year BS degree program accepts transfer students of two-year colleges who hold an associate’s degree in such areas as audiovisual technology, media specialist, photography, film making, television production, graphic design, commercial art, and other related fields.

Graduation requirements
The BS degree requires the completion of 96 quarter credit hours, a normal two-year program. If not acquired at the two-year college, RIT also requires two years of physical education.

Audiovisual Management electives
ICIC-460 Selection, Storage and Dissemination of Media Resources
ICIC-502 Practicum in Audiovisual Management
ICIC-560 Media Facilities Design
Other electives may be taken in the College of Business and the College of Continuing Education with the approval of the appropriate department and the student’s academic advisor.

Audiovisual Program Design elective
ICIC-501 Practicum in Audiovisual Program Design
Other electives may be taken in the College of Continuing Education with the approval of the appropriate department and the student’s academic advisor.

Audiovisual Production electives
ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-570 Survey of AV Hardware
ICIC-580 Producing Multimedia Presentations
ICIC-581 Producing Multi-image Presentations
ICIC-583 Advanced Multi-image Project
Other electives may be taken in the College of Continuing Education, the School of Engineering Technology, and the School of Photographic Arts and Sciences, with permission of the appropriate department and the student’s academic advisor.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

Audiovisual Communications, BS degree

<table>
<thead>
<tr>
<th>Course NAME</th>
<th>Quarter hours</th>
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<tbody>
<tr>
<td>General Education, required</td>
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<tr>
<td>General Studies Upper Division</td>
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<tr>
<td>Elective</td>
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</tr>
<tr>
<td>Total</td>
<td>45</td>
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</tbody>
</table>

Free Electives: 5

Audiovisual Communications, required courses

- ICIC-440 Audiovisual Program Design I: 4
- ICIC-450 Audiovisual Program Design II: 4
- ICIC-550 Management of Audiovisual Programs: 4
- Audiovisual Management Elective: 4
- Audiovisual Production Electives: 8
- ICIC-401 Message Design: 4
- ICIC-510 Writing for Audiovisual Programs: 4
- ICIC-405 Audiovisual Seminar: 2
- ICIC-595, 596 Senior Project: 4
- Audiovisual electives: 8
- Physical Education electives (as required): 0

Total credit for BS (plus associate’s degree): 96

V (See Pg. 29 for Policy on Physical Education. See Pg. 78 for General Studies requirements.)

ICIC-503 Practicum in Production
ICIC-570 Survey of AV Hardware
ICIC-580 Producing Multimedia Presentations
ICIC-581 Producing Multi-image Presentations
ICIC-583 Advanced Multi-image Project
Other electives may be taken in the College of Continuing Education with the approval of the appropriate department and the student’s academic advisor.

ICIC-490 Audio Techniques
ICIC-503 Practicum in Production
ICIC-570 Survey of AV Hardware
ICIC-580 Producing Multimedia Presentations
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Course descriptions
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School of Computer Science and Technology

Jack Hollingsworth, Director

The School of Computer Science and Technology offers programs leading to BS, B. Tech and MS degrees. The school accepts both high school graduates and two-year college graduates as freshmen and upper division classmen respectively. All degree programs offered in the School of Computer Science and Technology are designed to meet the manpower demands of industry, government and educational institutions. In addition to theoretical foundations, practical aspects of computer science or computer technology are emphasized. The opportunity for hands-on experience with computer systems is provided and encouraged. Graduates of the School of Computer Science and Technology are fully prepared for employment in computer industries, computer applications departments, or enrollment in graduate schools to pursue advanced studies.

Computer science and technology covers a very wide spectrum of the field of computing. A computer scientist or technologist can specialize in areas such as computing theory, scientific computing, information systems, systems software, numerical analysis, operating systems, data base systems, programming languages, systems analysis, and many others. It is important to note that programming is merely a tool in computer science and itself is not computer science. An undergraduate computer science and technology student is required to take a certain number of computer science courses in a selected option that will provide a good foundation in computing and useful specialties for employment.

Programs
The School of Computer Science and Technology offers the following programs:

1. Computer science (BS) degree program with options in computer science and applied software science
2. Computer technology (B. Tech) degree program with options in computer systems and system software science
3. A computer engineering (BS) program jointly offered with the Department of Electrical

College of Engineering section.

Students entering as freshmen may change options during the first three years of study without losing credit for courses they have taken (except computer engineering).

The only concern is mathematics requirements and professional or free electives, which differ between the various options. Students in all computer science and technology programs are required to obtain one year (four quarters) of Co-op work experience before graduation.

Computer Science program
The computer science program of the School of Computer Science and Technology offers options in computer science and applied software science. As a result of the mathematical requirements of the BS degree program, students with strong interest in mathematics are encouraged to pursue the BS degree options. In the case of students who are interested in computer science and technology, but are weak in mathematics, the bachelor of technology options would be the more desirable choice.

The computer science option is designed for students who are not sure which specialty will be pursued and for those who wish to enter graduate studies immediately following graduation. The applied software science option is designed for students who wish to work as scientific applications specialists upon graduation. However, the applied software science option also fully prepares its students for graduate studies.

Computer Science option
This program is designed to provide students with a broad and flexible background in computing theories and applications. Students who have decided not to specialize in an applied area should take this approach. In general, the program provides instruction in the following areas:

1. Computer science: required and elective courses including courses in the areas of automata theory, formal languages and logical design.
2. Math and/or science: including courses in calculus, physics, and numerous electives.
3. General studies: including courses in language, literature, science, humanities and the social sciences.

Graduates from this program are fully capable of entering employment or pursuing further educational goals at the graduate level.

### Computer Science option, BS degree

<table>
<thead>
<tr>
<th>Year</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
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</thead>
<tbody>
<tr>
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<td>3.</td>
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</table>
Applied Software Science option

This program is designed to provide competence in scientific and technical application software. All technical and scientific fields, such as engineering, physical science, mathematics, library science, psychology and others, rely heavily on the computer to achieve analysis, design, production, control and test. The applied software specialist is needed to make the computer applicable to a chosen field(s). Employment is to be found as scientific programmer or scientific system analyst in any of the above fields.

Students with strong mathematic backgrounds or interests are encouraged to choose this option.

Computer Technology program

The computer technology program of the School of Computer Science and Technology offers two options leading to the bachelor of technology degree. Course work reflects how these options are more specialized and directed toward particular areas than the bachelor of science degree program.

The options of this program are structured such that approximately 50 percent of the course work is in computer science and another 25 percent is in a professional elective area chosen outside computer science from such areas as business, mathematics, engineering, etc. This additional course work allows the students to tailor their overall program to a computer application or technical area of their own choosing. The remaining course work is in liberal arts (i.e., general studies electives) and mathematics. The required mathematics courses (i.e., Introductory Calculus and Statistics) give these students the necessary mathematical background to deal with many problems in computer science and computer technology. Students who want a more intensive background in mathematics can take the classical calculus and probability and statistics course sequence to meet the mathematics requirements and apply the additional hours towards their professional elective requirement. Two options are currently offered: computer systems and systems software science.

Students transferring to RIT with an associate's degree in data processing, accounting, etc. will find the bachelor of technology program particularly attractive. Except in unusual cases, these students can expect to receive full transfer credit for their AAS course work and a balanced mapping of these courses into the required curriculum. Since the students enter the program as juniors, they are normally eligible to begin their Co-op work experience after one quarter of course work at RIT.

Most graduates of the computer technology program go on to full-time employment in their chosen application or technical area of computer science. Some, however, choose to continue on to graduate school; the appropriateness of their undergraduate degree for graduate study largely depends on the composition of their professional elective area.
Computer Systems Option

The goal of this program is to provide students with the skills and technology fundamental to a career in business applications computing. Graduates from this program must master the principles and skills which underlie the disciplines of business data processing and data management. These include hardware organization and assembly language, data structures, file management, business programming system specification and design, business applications programming, data communication, and database design and implementation.

Positions in business data processing and data management not only require a strong computing background, but also a sound foundation in analytical and business skills. For this reason, students are required to take a basic sequence of courses from the School of Business and the Department of Mathematics. The student may continue to pursue a professional electives concentration in either business or mathematics, or may choose yet another relevant curriculum at RIT.

The computer systems curriculum is designed to facilitate transfer for graduates of two-year degree programs in data processing or business.

Computer Systems Option. B. Tech. degree

<table>
<thead>
<tr>
<th>Year</th>
<th>First Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<tbody>
<tr>
<td></td>
<td>ICSS-202 Introduction to Computer Science</td>
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<tr>
<td></td>
<td>ICSP-208 Introduction to Programming</td>
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<td></td>
<td>ICSP-210 Program Design and Validation</td>
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<td>ICSP-305 Assembly Language Programming</td>
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<td>SMAM-214, 215 Introductory Calculus</td>
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<td>SMAM-309 Statistics (3)</td>
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<td>ICSS-315 Digital Computer Organization</td>
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<td>ICSS-320 Data Structure Analysis</td>
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<td>ICSP-325 Data Organization and Management</td>
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<td>ICSP-307 Business Applications Programming</td>
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<td>ICSS-335 Systems Specification, Design and Implementation</td>
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<td>BBUB-201 Management Concepts</td>
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<td>BBUA-210 Financial Accounting</td>
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<table>
<thead>
<tr>
<th>Year</th>
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<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<tbody>
<tr>
<td></td>
<td>ICSS-320 Data Structure Analysis</td>
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<td>ICSS-420 Data Communication Systems</td>
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<td>ICSS-485 Database Concepts</td>
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<td>ICSP-488 Programming Systems Workshop</td>
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<td>★General Studies Electives (Upper Division)</td>
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<td>Cooperative Education (4 quarters)</td>
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</tbody>
</table>

Upon successful completion of the second year, students are eligible for the Associate in Applied Science degree.

1. Computer Science courses may be taken as Computer Science Electives except as noted in the Course Description Catalog.

♯See Pg. 28 for Policy on Physical Education.
*See Pg. 78 for General Studies requirements.

(2) Restricted Computer Science Electives for the Computer Systems Option:
Students must take one course from Group A and one course from Group B.

Group A: Systems Software - Software Emphasis
ICSP-350 Programming Language Concepts
ICSS-440 Operating Systems
ICSS-730 Discrete Simulation
ICSS-770 Computer Graphics

Group B: Systems Software - Hardware Emphasis
ICSS-565 Computer Systems Selection
ICSS-575 Minicomputer Systems and Applications
ICSS-721 Microprocessors and Microcomputers

(3) Mathematically inclined students may satisfy the mathematics requirement by substituting SMAM-251, 252, 253, 351 and 352 for the listed SMAM courses. The additional courses will be counted as professional electives.
Systems Software Science Option

The goal of this program is to provide students with a background in the principles of systems software as well as experience in the design, implementation, and maintenance of systems programs. Systems programs are those which enhance the performance, utility or flexibility of a computer system. In many respects, a systems programmer is a toolmaker whose tools are used by applications programmers. These tools include operating systems, compilers, text processors and database systems.

Students in this option must learn to deal with the lowest level programs in a computer system. For this reason, a deep understanding of hardware concepts and assembly language programming is essential. In addition, a strong grounding in operating systems principles, language processors and data communications is necessary.

Graduates are prepared for employment as systems programmers or systems software specialists. Any relevant curriculum at RIT may be chosen for professional electives.

Systems Software Science Option, B. Tech. degree

<table>
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<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<tbody>
<tr>
<td>First Year</td>
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<td>ICSS-550</td>
<td>4</td>
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<tr>
<td>Restricted Computer Science Electives (2)</td>
<td>12</td>
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<td></td>
</tr>
<tr>
<td>Computer Science Electives (1)</td>
<td>24</td>
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<tr>
<td>Professional Electives</td>
<td>32</td>
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<tr>
<td>General Studies Electives (Upper Division)</td>
<td>15</td>
<td></td>
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</tr>
<tr>
<td>Cooperative Education (4 quarters)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Upon successful completion of the second year, students are eligible for the Associate in Applied Science degree.

(1) Computer Science courses may be taken as Computer Science Electives except as noted in the Course Description Catalog.

(2) Restricted Computer Science Electives for the System Software Science option:
Students must take one course from Group A, one course from Group B, and one course from Group C.

Group A: Advanced Software Techniques
- ICSS-540 Operating Systems Laboratory
- ICSS-560 Compiler Construction Laboratory
- ICSS-585 Systems Programming Laboratory

Group B: Advanced Digital Computer Principles
- ICSS-545 Processor Design Concepts
- ICSS-720 Computer Architecture
- ICSS-721 Microprocessors and Microcomputers

Group C: Application Areas
- ICSS-465 Database Concepts
- ICSS-515 Analysis of Algorithms
- ICSS-730 Discrete Simulation
- ICSS-770 Computer Graphics

(3) Mathematically inclined students may satisfy the mathematics requirement by substituting SMAM-251, 252, 253, 351 and 352 for the listed SMAM courses. The additional courses will be counted as professional electives.

tSee Pg. 28 for Policy on Physical Education.
*See Pg. 78 for General Studies requirements.
School of Engineering Technology

W. David Baker, Director

Engineering technology is a relatively new field in higher education, and RIT was a pioneer in the development of such programs. Originally conceived as associate’s degree level educational programs, engineering technology curricula were designed to prepare people to work with engineers and scientists as technicians. This educational role is presently being carried out primarily in two-year community colleges and technical institutes.

More recently, RIT again was a pioneer in the development of baccalaureate programs in engineering technology. The School of Engineering Technology was established to offer upper-division (junior-senior) level work in civil engineering technology (environmental and construction options), electrical engineering technology, manufacturing technology, and mechanical engineering technology.

The School of Engineering Technology upper-division programs are designed specifically to accept graduates of associate’s degree programs in similar engineering technology fields, and provide a continuation of study in the student's area of specialization.

Each program area consists of a carefully integrated program heavily involved in professional studies, coupled with liberal education, mathematics, and on-the-job experience.

Each student is considered individually when his or her program is planned. Through the selection of technical electives students can build and tailor their program based on previous knowledge and Co-op experience to launch a career that best meets their needs and aspirations.

The graduate—an engineering technologist—is a distinct type of professional whose main concern and interest is with existing operation, maintenance, and management of products and processes. As such, the graduate qualifies for positions to fulfill a role within the broad engineering requirements of business, industry and government. At the present time, the New York State Board for Engineering and Land Surveying requires the B. Tech graduate to achieve additional experience prior to becoming eligible for the New York State Professional Engineer examination. Requirements differ in other states.

Cooperative work plan
An integral and significant part of each School of Engineering Technology program in engineering technology is on-the-job experience through the cooperative education plan. This involves alternate periods of academic study and related industrial employment.

The co-op provides opportunity for individual students to learn and become familiar with direct application of techniques, skills, and the latest developments in their field. Students are encouraged to explore and test the wide range of opportunities available. Such things as the specific type of work, the size of the company, the geographic location, and familiarization with the industrial community and environment can and do affect an individual's decision on the direction a future career might take. Only co-op can provide a suitable trial ground.

Obviously, co-op can also provide a significant income during the work periods which help defray a major portion of one's educational expenses.

In the School of Engineering Technology each student is assisted in finding work related to specific career goals, however, as is the case in any employment situation, the major impetus must originate with the individual student. In some School of Engineering technology programs the entering (junior) class is divided into two sections with one half of the class beginning their RIT program on a co-op job, and the other half beginning with their academic work. Detailed schedules are provided in the description of the individual programs on the following pages.

Admission requirements

The School of Engineering Technology accepts only transfer students. Admission to the bachelor of technology degree programs in the School of Engineering technology is open to persons holding an associate’s degree in air conditioning technology, civil or construction technology, electrical technology, manufacturing technology, mechanical technology, a comparable associate’s, degree program, or an acceptable equivalent. Please refer to individual department requirements for a more complete definition of an acceptable degree.

Admission may be offered to students with other associate degrees or program backgrounds. In such cases, students should contact the School of Engineering Technology for an individual evaluation of the appropriateness of their previous academic experience.

RIT’s College of Engineering also is able to accept engineering technology associate’s degree graduates; however, additional work is required, depending upon the specific program and the student’s past scholastic performance.

Program requirements

School of Engineering Technology students are required to successfully complete the prescribed program including co-op experience.

A total of 39 quarter credit hours of general studies for the B. Tech degree (associate’s degree program plus RIT course work) is required. The quantity of general studies to be completed at RIT is, therefore, 39 quarter hours minus the amount of general studies transferred from the two-year college.

Unless suitable physical education credit is transferred, students are also required to complete up to three physical education electives with passing grades.

Graduation requirements

The minimum requirements for the B. Tech degree in engineering technology are (1) successful completion of the prescribed program including co-op work experience. (2) minimum cumulative quality point average of 2.0.

Accreditation

The program of study leading to the bachelor of technology degree in civil engineering technology, (environmental option), electrical engineering technology, and mechanical engineering technology, are all accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET). The School of Engineering Technology is a member institution of the American Society for Engineering Education.
Civil Engineering Technology Department

A. S. Yalcin, Chairman

Civil Engineering Technology, upper division baccalaureate program

The civil engineering profession requires the services of many individuals with a wide range of backgrounds and interests—technicians, technologists, and engineers. The technologist translates the innovative concepts of the engineer into functioning systems and structures, using the language of codes, working drawings, specifications, and construction.

All students enter this program at the third year level, having already received an appropriate associate’s degree in civil or construction technology or an acceptable equivalent. An appropriate associate’s degree must include the following:

Technical Mathematics
(Preferably Introduction to Calculus)

DRAFTING

Technical Physics
Elementary Soil Mechanics
Plan and Route Surveying
Elementary Structural Design
Statics and Strength of Materials

Students with backgrounds that do not meet the above standards will be required to take remedial courses prior to entry into program.

Entering students have a choice of following either a curriculum oriented towards environmental controls or towards the construction industry. However, since both programs of study are sufficiently broad in scope and allow for elective courses, graduates of either program of study should find wide-ranging employment opportunities.

Cooperative education plan

Experience gained in the cooperative education plan is especially valuable. A large number of students work in their co-op jobs for consulting engineers. Their duties include inspection of construction, surveying, and drafting. Several co-op students work in water and wastewater treatment plants, operating control panels, performing laboratory tests and doing routine maintenance work. (It is possible to obtain an operator’s license while on this type of assignment.) Other students work for town engineering departments, state agencies, construction companies, industrial construction departments, and testing agencies.

Graduates of this program can expect to find employment with consulting engineers, in supervisory positions of pollution control facilities, construction companies, industrial firms, and the engineering departments of various federal, state and local governmental agencies. Also, several graduates have successfully completed master’s degrees in civil and environmental engineering at other schools of engineering.

Technical electives

ITEC-480 Groundwater
Hydraulics ..................... 3 credits
ITEC-505 Construction
Safety .......................... 3 credits
ITEC-549 Environmental
Engineering Project....... 4 credits
ITEC-550 Construction
Practices ......................... 4 credits

ITEC-552 Structural Analysis &
Design II
(structural steel).............. 4 credits
ITEC-580 Senior Construction
Seminar ........................ 3 credits
CSTEM-560 Legal and Ethical
Responsibilities of the Field
Engineer
(Evening course) .......... 4 credits
ITEC-556, 557 Wastewater
Treatment Plant Operation and
Control I & II ............... 1-4 credits

With departmental approval, technical electives may be selected from existing courses in mathematics, chemistry, physics, engineering, and technology. Also, independent study projects may be pursued for credit in cases where students demonstrate unusual ability and obtain sponsorship of a faculty advisor.
## Construction option cooperative education schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Work</td>
<td>RIT</td>
<td>RIT</td>
<td>Work</td>
</tr>
<tr>
<td>4</td>
<td>Work</td>
<td>RIT</td>
<td>RIT</td>
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<tr>
<td>5</td>
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<td>RIT</td>
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</table>

### Civil Engineering Technology, B. Tech degree-Environmental option

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Course Code</th>
<th>Course Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>ITEC-420</td>
<td>Hydraulics</td>
<td>4</td>
</tr>
<tr>
<td>Winter</td>
<td>ITEE-414</td>
<td>Basic Electrical Principles</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SCHG-271</td>
<td>Chemistry of Water I</td>
<td>2</td>
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<tr>
<td></td>
<td>SMAT-421</td>
<td>Solution of Engineering Problems I</td>
<td>4</td>
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<tr>
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<td>SMAT-420</td>
<td>Introduction to Solutions of Engineering Problems</td>
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<td>Physical Education Elective</td>
<td>3</td>
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</tr>
<tr>
<td>Winter</td>
<td>ITEE-438</td>
<td>Principles of Treatment of Water and Sewage</td>
<td>4</td>
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<tr>
<td></td>
<td>SCHG-272</td>
<td>Chemistry of Water II</td>
<td>3</td>
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<tr>
<td></td>
<td>SBIG-440</td>
<td>Environmental Microbiology</td>
<td>4</td>
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<tr>
<td></td>
<td>SMAT-422</td>
<td>Solution of Engineering Problems II</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>SMAT-421</td>
<td>Solution of Engineering Problems I</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ITEC-513</td>
<td>Computer Techniques</td>
<td>4</td>
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<tr>
<td></td>
<td>ITEC-520</td>
<td>Design of Water Treatment Facilities</td>
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</tr>
<tr>
<td></td>
<td>ITEC-516</td>
<td>Analysis of Reinforced Concrete Structures</td>
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<td></td>
<td>Physical Education Elective</td>
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<td>General Studies Elective (Upper Division)</td>
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<td></td>
<td>Physical Education Elective</td>
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<td></td>
</tr>
<tr>
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<td>General Studies Elective (Upper Division)</td>
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</tr>
<tr>
<td></td>
<td>ITEC-514</td>
<td>Land Planning</td>
<td>2</td>
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<tr>
<td></td>
<td>ITEC-515</td>
<td>Design of Water Treatment Facilities</td>
<td>4</td>
</tr>
<tr>
<td>Winter</td>
<td>ITEC-516</td>
<td>Analysis of Reinforced Concrete Structures</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>General Studies Elective (Upper Division)</td>
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<tr>
<td></td>
<td>ITEC-517</td>
<td>Computer Techniques</td>
<td>1</td>
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<tr>
<td></td>
<td>ITEC-520</td>
<td>Design of Wastewater Treatment Facilities</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>ITEE-414</td>
<td>Basic Electrical Principles</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>ITEC-544</strong></td>
<td>Contracts and Specifications</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td><strong>ITEC-546</strong></td>
<td>Professional Principles &amp; Practices</td>
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<tr>
<td></td>
<td>Technical Elective</td>
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<tr>
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<td>Free Elective</td>
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<tr>
<td></td>
<td>General Studies Elective (Upper Division)</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

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# Electrical Engineering Technology Department

**John A. Stratton, Chairman**

## Electrical Engineering Technology, upper division baccalaureate program

The bachelor of technology degree in electrical engineering technology is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering and Technology. This relatively new professional program is designed to meet the growing needs for technologists in a technologically oriented society.

The term technologist is used to define the graduate of this program, one whose professional training is in the application of existing technology and devices to the solution of routine engineering design problems.

The bachelor of technology program in electrical engineering technology offered at Rochester Institute of Technology is an upper-division program. The upper-division feature of the program provides a viable transfer option to those students who have completed their associate’s degree and desire to continue their education in technology.

The first two quarters of course work are designed to provide uniform mastery in the fields of mathematics and circuit theory. The remaining four quarters of course work consist of professional courses with elective options in the fields of electrical power, communications, and digital computer design.

Elective courses are available for the student to pursue his or her chosen option and to provide course work that complements his or her professional objectives. Professional electives are normally assumed to be those shown as technical electives. However, the Institute provides a wide variety of course offerings and students are urged to make full use of these offerings in developing their professional programs. Academic advisors are provided to assist the student in this selection process.

For students who wish to concentrate their electives in the computer area, a sequence of courses is shown which provides a strong program in this area.

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### Notes

- Students who successfully complete a proficiency examination in hydraulics will take ITEC-434 in lieu of ITEC-420.
- Students who successfully complete a proficiency examination in mathematics background will be taking a 3-course sequence in Solution of Engineering Problems and will, therefore, defer taking ITEC-414 until the first quarter of the fifth year (in lieu of a technical elective).
- **Offered in Spring Quarter Only**
- See Pg. 28 for Policy on Physical Education.
- See Pg. 78 for General Studies requirements.
The curriculum also includes one year of cooperative work experience and, thus, provides important training in the solution of real technical problems.

Entering students are divided into two groups, A and B, and are assigned to work or school according to the schedules shown. Note that half of the entering students will begin their program of studies at RIT by working on their co-op job.

**Admission requirements**
All students enter the program at the third year or junior level as transfers from existing two-year associate’s degree electrical technology programs. Students from associate degree programs that are closely related to electrical technology and that have appropriate circuits and electronic course levels are also accepted but may be required to take remedial courses prior to matriculating into the program.

**Technical electives** *(each carries 4 quarter credit hours)*
- ITEE-521 Electromagnetic Fields and Antennas
- ITEE-524 Microwave Systems
- ITEE-526 Semi-Conductor Physics
- ITEE-534 Communications Systems I
- ITEE-535 Communications Systems II
- ITEE-536 Control Systems II
- ITEE-538 Digital Computer Design I
- ITEE-539 Digital Computer Design II
- ITEE-542 Microprocessors
- ITEE-543 Minicomputers, Controllers, and Peripherals
- ITEE-546 Industrial Electronics
- ITEE-547 Digital Processing of Signals
- ITEE-548 D.C. and A.C. Machine Design
- ITEE-550 Power Systems I
- ITEE-551 Protective Relaying
- ITEE-552 Power Systems II
- ITEE-554 Electronic Optic Devices
- ITEE-556 Transmission Lines and Filters
- ITEE-580 Senior Project
- ITEE-402 Statistical Quality Control I
- ITEF-550 Topics in Machine Design for Electrical Majors

### Electrical Engineering Technology cooperative education plan

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
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<tr>
<td>3 and 4</td>
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<td>RIT</td>
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<td>Work</td>
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<td>Work</td>
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<td>Work</td>
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<tr>
<td>6</td>
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</table>

**Electrical Engineering Technology, B. Tech degree**

- Completion of an appropriate associate’s degree at a two-year college

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
</tr>
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<tbody>
<tr>
<td>3 and 4</td>
<td>ITEE-401 Circuit Theory I</td>
<td>4</td>
<td>ITEE-404 Logic and Digital Devices</td>
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<td></td>
<td><strong>SMAT-420 Introduction to Solution of Engineering Problems</strong></td>
<td>(4)</td>
<td><strong>SMAT-421 Solutions of Engineering Problems I</strong></td>
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<tr>
<td></td>
<td><em>General Studies (Lower Division)</em></td>
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<td>4</td>
<td>ITEE-402 Circuit Theory II</td>
<td>4</td>
<td>ITEE-426 Control Systems II</td>
<td>4</td>
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<td>ITEE-404 Control Systems I</td>
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<td>ITEE-542 Microprocessors</td>
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<td><strong>SMAT-421 Solution of Engineering Problems I</strong></td>
<td>(4)</td>
<td><strong>SMAT-422 Solution of Engineering Problems II</strong></td>
<td>4</td>
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<tr>
<td></td>
<td>ICSP-205 Computer Techniques</td>
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<tr>
<td></td>
<td>ITEE-425 Power Concepts</td>
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<tr>
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<tr>
<td>5</td>
<td>ITEE-411 Engineering Materials I</td>
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<td>ITEE-436 Engineering Economics</td>
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<td>Technical Specialization Option: (Digital Design I, Power Systems I, Transmission Lines and Filters)</td>
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</tr>
<tr>
<td></td>
<td>ITEE-413 Engineering Economics</td>
<td>4</td>
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<td>Technical Specialization Option: (Digital Design II, Protective Relaying, Communications I)</td>
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<tr>
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<td>ITEE-435 Introduction to Strength of Materials</td>
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<td></td>
<td>Technical Elective</td>
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</tbody>
</table>

**Elective Sequence-Computer Design Specialization**

<table>
<thead>
<tr>
<th>4th Year</th>
<th>Spring/Summer</th>
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<tbody>
<tr>
<td>ITEE-538 Computer Design I</td>
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<table>
<thead>
<tr>
<th>5th Year</th>
<th>Fall/Winter</th>
<th>Spring</th>
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<tbody>
<tr>
<td>ITEE-539 Computer Design II</td>
<td></td>
<td></td>
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<tr>
<td>ITEE-543 Minicomputers, Controllers, and Peripherals</td>
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</tbody>
</table>
Mechanical Engineering Technology Department

Louis B. Gennaro, Chairman

The Mechanical Engineering Technology Department offers programs in Mechanical, Manufacturing, and Energy Technology.

Mechanical Engineering Technology, upper division baccalaureate program

Background

The demand for technology graduates to support the wide-ranging activities of the mechanical engineering industries is ever on the increase due to discoveries, inventions, and the new needs which arise from the desire to do things in a more creative and efficient manner. The central theme of all industry is to successfully design and produce a functional, reliable and profitable product, or service. This task can only be accomplished by individuals who are familiar with concepts, the body of knowledge, and a set of learned skills which apply to their specific field.

The Mechanical Engineering Technology Program develops in the student the ability to conceive solutions through the application of familiar concepts in innovative ways, so that he can make his vital contribution to the objective of technological enterprise in his subsequent career.

The program is accredited by the Technology Accreditation Commission of the Accreditation Board for Engineering Technology and is operated on the cooperative education plan.

Objectives of the program

The objectives of this program are to prepare the student to occupy professional positions in mechanical design, field service engineering, technical sales, and plant operations upon graduation. The program emphasizes the development of a design methodology, and this is reinforced through the use of project-oriented assignments which challenge the student to develop his design abilities.

Curriculum

In the early quarters, the student expands his skills in the fundamentals of mechanics, mathematics and materials technology.

Mechanical engineering technology cooperative education plan

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
<th>Summer</th>
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<td>3 and 4</td>
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<tr>
<td>B</td>
<td>RIT</td>
<td>RIT</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

In the senior quarters, the main concentration is in machine design, and a range of electives are available in this area.

Individuals will be allowed to select electives from energy specialization or the manufacturing technology program, provided they satisfy the prerequisites for the courses elected.

A substantial measure of laboratory work is required, including the preparation of quality reports. Thus, technical and communication skills are enhanced as well as his future professional performance.

Admission Requirements

All students enter this program at the third-year level having received an appropriate associate’s degree in mechanical technology, design-drafting technology or an acceptable equivalent. It is expected that these programs will have provided the entrant with background in the following:

- Mathematics through Introductory Calculus
- Physics
- Mechanical Drafting
- Manufacturing Processes
- Statics and Elementary Strength of Materials
- Machine Design

Technical Electives - Mechanical

- ITEM-406 Dynamics of Machinery
- ITEM-442 Heat Transfer
- ITEM-451 Vibration and Noise
- ITEM-507 Design Practice
- ITEM-508 Special Topics in Machine Design
- ITEM-530 Instrumentation
- ITEM-535 Analog Control Systems
- ITEM-540 Thermal Technology
- ITEM-599 Independent Study
Energy Technology

Upper Division Baccalaureate program

Background

Recent history has brought energy to the forefront of the news on a daily basis. Energy is the life blood of the national economy and has wide-ranging international, political and economic impact. Industrial, commercial and governmental groups as well as individuals are now focusing a great deal of attention on energy conservation and energy management techniques. The increasing importance of this vital field has created a strong demand for persons who are well grounded in energy technology.

Objectives of the Program

The Energy Technology Program was developed to provide a direct route for persons having associate’s degrees in energy related technologies to gain professional positions in the energy field. It is designed to prepare individuals to work in the areas of building energy system design, energy conservation, and energy management. These positions are with consulting engineering firms, industrial corporations, building owners, mechanical contractors and companies manufacturing and marketing HVAC apparatus.

The Curriculum

The curriculum in energy technology has been designed with the assistance of professionals in the field and educators from two-year programs in air conditioning technology. It includes courses which these professionals feel are fundamental for success in the field. There is a very strong emphasis on energy topics: thermal energy, heat transfer, fluid mechanics and electrical energy. Integrated into the main stream of energy courses are supporting courses in mathematics, computer science, engineering economics, and civil engineering technology. In addition to the required courses, students are encouraged to select technical electives to enhance their particular area of interest.

Admission requirements

The Energy Technology Program admits students holding an associate’s degree in air conditioning technology, energy technology, environmental control technology or the equivalent.

Interested persons not holding an associates degree in one of these areas are advised to contact the program coordinator to discuss admission.

Technical Electives-Energy Technology

ITEC-544 Contracts and Specifications
ITEM-404 Applied Mechanics of Materials
ITEM-405 Applied Dynamics
ITEM-541 Alternative Energy Applications I
ITEM-543 Energy Management I
ITEM-544 Energy Management II
ITEM-546 Alternative Energy Applications II
ITEM-547 Special Topics - Energy Technology

Energy Technology co-operative education plan

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**SMAT-420 Introduction to Solution of Engineering Problems................................. (4)
**SMAT-421 Solution of Engineering Problems I.................................................. (4)
ICSP-205 Computer Techniques.................................................................................. 3
ITEM-408 Introduction to Strength of Materials..................................................... 4
ITEC-428 Report Writing............................................................................................ 2
ITEC-550 Construction Practices................................................................................ 4
**SMAT-421 Solution of Engineering Problems I.................................................. (4)
**SMAT-422 Solution of Engineering Problems II.................................................. 4
ITEM-436 Engineering Economics............................................................................... 4
ITEM-441 Thermodynamics and Heat Transfer......................................................... 4
*General Studies (lower division).......................................................................... 4
*Physical Education................................................................................................. 0

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| Third | Technical Elective.......................... 4
SMAT-422 Solution of Engineering Problems II.................................................. 4
ITEM-442 Heat Transfer......................................................................................... 4
ITEM-461 Fluid Mechanics..................................................................................... 3
*General Studies (lower division)........................................................................ 4
*Physical Education.............................................................................................. 0
ITEM-465 Thermofluid Laboratory.......................................................................... 2
ITEE-414 Basic Electricity...................................................................................... 4
ITEC-550 Thermal Technology............................................................................... 4
*General Studies (upper division)....................................................................... 5
*Physical Education.............................................................................................. 0

| Fourth Year | Technical Elective.......................... 4
ITEM-542 HVAC Systems Engineering................................................................. 4
ITEM-544 HVAC Control Systems........................................................................... 4
*General Studies (upper division)....................................................................... 5

*Entering students will take SMAT-420 or 421 depending on an evaluation of their mathematics background. Those assigned to SMAT-420 will substitute this course for a fourth year technical elective.

*See Pg. 28 for Policy on Physical Education.

*See Pg. 78 for General Studies requirements.
Manufacturing Engineering Technology, upper division baccalaureate program

**Background**

Leaders in the manufacturing engineering profession estimate that the present shortage of qualified manufacturing technologists is between 50,000 and 100,000 people - and this need is increasing. The two principal factors generating this demand are industrial productivity and technological innovations. The rate of increase of productivity in American industry is lagging that of most industrial nations.

Realizing that competitive position in world markets, domestic markets, and profits are tied to the productivity of manufacturing units there is considerable effort by industrial organizations to improve their productivity. This nation-wide effort is causing organizational and planning changes in many corporations which now recognize the manufacturing unit as the key to profits - for example, many corporations have placed manufacturing engineers in charge of new product design functions in an effort to insure product manufacturability.

These efforts to improve productivity have led to the rapid introduction of new, often exotic, processes, equipment, and increased amounts of automation. This factor has created a demand for personnel well versed in the newer manufacturing technologies: numerical control, machine tools, micro-processor controls, computer-aided manufacturing, and manufacturing systems.

**Objectives of the program**

The primary objectives of the baccalaureate program in manufacturing technology are to prepare individuals for professional employment as manufacturing technologists. This program is designed to provide the academic skills necessary for applying both today’s and tomorrow’s manufacturing technologies. These academic skills are enhanced by a full co-op program in manufacturing industries. Throughout the academic program, a large measure of hands-on laboratory experiences related to manufacturing technology are provided.

**Curriculum**

The manufacturing technology curriculum has been designed with the aid and consultation of professionals in the field. It includes those courses which these people feel are fundamental for professional success in the field. The program includes courses in mathematics, computer programming, metal removal and forming, materials science, numerical control, and economic analysis. Also, students are encouraged to select technical electives to enhance their particular areas of interest.

**Admission requirements**

All students enter at the third-year level having received an appropriate associate’s degree in mechanical or manufacturing technology including:

- Manufacturing Processes
- Machine Tools
- Mathematics through Pre-calculus
- Physics
- Mechanical Drafting
- Numerical Controls (manual programming)
- Statics and Elementary Strength of Materials

**Manufacturing Engineering Technology cooperative education plan**

<table>
<thead>
<tr>
<th>Year</th>
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<td>B</td>
<td>Work RIT</td>
<td>RIT Work</td>
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</table>

**Manufacturing Engineering Technology, B. Tech Degree**

*Entering students will take SMAT-420 or 421 depending on an evaluation of their mathematics background. Those assigned to SMAT-420 will substitute this course for a fourth-year technical elective.*

*See Pg. 26 for Policy on Physical Education. See Pg. 78 for General Studies requirements.*

**Manufacturing Engineering Technology electives**

- ITEE-425 Statistical Quality Control II
- ITEE-431 Manufacturing Organization
- ITEE-475 Computer-Aided Manufacturing
- ITEE-480 Work Simplification and Measurement
- ITEE-491 Material Control
- ITEE-511 Process Design II
- ITEE-514 Special Topics in Material Forming
- ITEE-699 Independent Study

Other electives may be taken in the College of Applied Science and Technology, College of Continuing Education, College of Engineering and College of Science with the approval of the appropriate department and the student's academic advisor.
Department of Packaging Science

Harold J. Raphael, Director

Packaging Science, upper division baccalaureate program

The Packaging Science program, leading to the bachelor of science degree, is broadly interdisciplinary, providing educational opportunities for men and women seeking careers in the multi-faceted packaging industry.

Graduates are prepared for initial employment in such areas as packaging development, sales, purchasing, structural and graphic design, production, research, and marketing.

Packaging is a $50 billion industry exhibiting dynamic growth and providing employment for many thousands of men and women with wide-ranging skills and expertise.

Since the end of World War II the development of a package for a given product has become increasingly complex involving input from many areas of business and from people with diverse backgrounds. This has resulted in the need for specially trained professionals able to work with concepts, individuals, materials, and machines. Qualified persons in this area are in demand and find themselves in a rapidly changing, challenging career. The RIT program trains people for this exciting profession.

The degree program in Packaging Science was developed because of a close and well-established relationship between the packaging industry and Rochester Institute of Technology over many years.

Packaging has become increasingly related to total marketing concepts; it has even greater dependence upon new developments in materials and processes. Therefore, the industry requires management personnel with strong backgrounds in business, engineering, science and the creative dimension.

All of these educational disciplines are found in the department curricula of RIT. This interdisciplinary Program synthesizes these existing and recognized strengths with additional offerings recommended by representatives of the industry.

BS degree in Packaging Science—Technical option

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<th>Year</th>
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<tr>
<td>IPKG-201 Principles of Packaging</td>
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<td>General Studies</td>
<td>4</td>
<td>4</td>
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<tr>
<td>SMAM-201 Algebra</td>
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<td>3</td>
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<tr>
<td>SCHG-206, 209 College Chemistry</td>
<td>4</td>
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<tr>
<td>PPRT-200 Introduction to Printing</td>
<td>3</td>
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<tr>
<td>ICSIP-205 Computer Techniques</td>
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<tr>
<td>*Physical Education</td>
<td>0</td>
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</tbody>
</table>

| Second Year | | | |
| IPKG-310 Methods of Evaluation | 2 | 2 | |
| IPKG-311 Packaging Materials I | 3 | 3 | 3 |
| IPKG-312 Packaging Materials II | 3 | 3 | 3 |
| IPKG-315 Packaging Systems | 4 | 4 | 4 |
| General Studies | 4 | 4 | 4 |
| SCHG-231, 232 Organic Chemistry | 4 | 4 | 4 |
| ITEM-425 Statistical Quality Control | 3 | 3 | 3 |
| ITEM-301 Engineering Graphics | 3 | 3 | 3 |
| BBUM-263 Marketing Principles | 3 | 3 | 3 |
| PPRT-203 Layout and Printing Design | 3 | 3 | 3 |
| *Physical Education | 0 | 0 | 0 |

| Third Year | | | |
| IPKG-401 Career Seminar | 4 | 4 | 4 |
| IPKG-431 Packaging Production Systems | 4 | 4 | 4 |
| IPKG-432 Packaging for Distribution | 4 | 4 | 4 |
| IPKG-433 Packaging for Marketing | 3 | 3 | 3 |
| General Studies | 3 | 3 | 3 |
| SPSP-211, 212, 213 College Physics | 4 | 4 | 4 |
| PPRM-201 Introduction to Technical Writing | 3 | 3 | 3 |
| Free Electives | 5 | 5 | 5 |

| Fourth Year | | | |
| IPKG-520 Packaging Management | 3 | 3 | 3 |
| IPKG-524 Packaging Economics | 3 | 3 | 3 |
| IPKG-530 Packaging and the Environment | 3 | 3 | 3 |
| IPKG-585 Shock and Vibration | 4 | 4 | 4 |
| General Studies | 4 | 4 | 4 |
| Free Electives | 5 | 5 | 5 |

(See Pg. 78 for General Studies requirements.)

BS degree in Packaging Science—Design option

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<tr>
<th>Year</th>
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<td>IPKG-201 Principles of Packaging</td>
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<tr>
<td>FADF-230, 231, 232 Design 2-D</td>
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<td>3</td>
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<tr>
<td>FADF-240, 241, 242 Design 3-D</td>
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<td>*General Studies</td>
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<tr>
<td>SSEG-201 Biology</td>
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<tr>
<td>SSEG-202 Chemistry</td>
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<tr>
<td>*Physical Education</td>
<td>0</td>
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| Second Year | | | |
| IPKG-311 Packaging Materials I | 3 | 3 | 3 |
| IPKG-312 Packaging Materials II | 3 | 3 | 3 |
| IPKG-315 Container Systems | 3 | 3 | 3 |
| FADC-301, 302, 303 Introduction to Communication Design | 3 | 3 | 3 |
| FADD-301, 302, 303 Environmental Design | 3 | 3 | 3 |
| FADF-261, 262, 263 Drawing | 3 | 3 | 3 |
| General Studies | 4 | 4 | 4 |
| *Physical Education | 0 | 0 | 0 |

| Third Year | | | |
| IPKG-310 Methods of Evaluation | 2 | 2 | 2 |
| IPKG-401 The Packaging Industry | 4 | 4 | 4 |
| IPKG-431 Packaging Production Systems | 4 | 4 | 4 |
| IPKG-432 Packaging for Distribution | 4 | 4 | 4 |
| IPKG-433 Packaging for Marketing | 4 | 4 | 4 |
| FADC-401, 402, 403 Packaging Design I, II, III | 6 | 6 | 6 |
| SSEG-203 Physics | 4 | 4 | 4 |
| BBUM-263 Marketing Principles | 5 | 5 | 5 |
| General Studies | 2 | 2 | 2 |
| Free Electives | 2 | 2 | 2 |

| Fourth Year | | | |
| FADC-501, 502, 503 Packaging Design IV, V, VI | 6 | 6 | 6 |
| PPRM-201 Introduction to Technical Writing | 3 | 3 | 3 |
| PPRT-200 Introduction to Printing | 3 | 3 | 3 |
| PPRT-206 Reproduction Photography | 5 | 5 | 5 |
| General Studies | 2 | 2 | 2 |
| Free Electives | 2 | 2 | 2 |

(See Pg. 78 for General Studies requirements.)
Characteristics of the program
The program has these characteristics:
1. It is career oriented—the graduate is ready to enter directly into a position of responsibility.
2. It is interdisciplinary—the student becomes familiar with the many facets of packaging through courses in several RIT colleges.
3. It is flexible—the program offers three options: management, design, and technical, with ample opportunity for electives according to interest.
4. It is representative of industry needs—the content developed with the assistance of the Rochester Area Packaging Association, consultants from the packaging industry, and educational specialists.
5. It is adaptable to a modified cooperative plan, used widely in other RIT programs.

Admission requirements
The four-year BS degree program considers for admission high school graduates who meet the following requirements: English, 4 years; mathematics, elementary algebra and either plane geometry or intermediate algebra; science, one year. Candidates are evaluated in relation to career objectives, designated option, and other indications of potential success in the program. A portfolio is required of those students electing the design option.

Upper division (transfer)
Transferring into the program with advanced standing is particularly advantageous, since RIT has had many years of experience in assimilating graduates of two-year colleges into its programs and moving them from this point in their education directly into a chosen career field. Some candidates now in four-year colleges will find in the packaging science program a career opportunity with developing potential. Associate’s degree holders (AA, AS, AAS) have courses arranged to meet the requirements of the program and to correct deficiencies resulting from work taken at other institutions not offering the courses required for graduation. With a selective choice of electives by students in the two-year colleges, it is possible to complete the packaging science curriculum in two additional years at RIT.

Principal field of study
For students matriculated in the interdisciplinary Packaging Science Program, the principal field of study is defined to be all courses in the Packaging Science Department as well as the required courses in the College of Science for the Technical Option, the required courses in the College of Fine and Applied Arts for the Design Option or the required courses in the College of Business for the Management Option. Matriculated students not maintaining a 2.0 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.
College of Business

Walter F. McCanna, Dean

The College of Business is composed of the School of Business Administration, the School of Retailing, and the School of Food, Hotel and Tourism Management. The programs reflect the world of business, which has become increasingly complex, and advance new theories with business application. Ideas that were not even formulated five years ago are viewed as routine today. New knowledge is constantly evolving that must become part of the student's education. While incorporating this new knowledge into the program, it is also important that the student's education have lasting value.

Physical facilities include well-appointed classrooms and laboratories and modern equipment. Student learning is extended further through other facilities, including an up-to-date and complete library of books and periodicals, as well as through use of television, films, professional speakers and field trips, applicable to the various fields of study.

Curricula in the College of Business have been improved significantly during the past decade. The Institute's business programs now allow greater flexibility; there are many more elective courses from which a student may choose. The College of Business has 1,660 students and 50 faculty members. Besides the upgrading of the curricula, there have been other developments during the recent past. Such developments as taking significant steps to revitalize the retailing and food-tourism programs and progress toward establishing a good learning center in the college.

However, along with these new directions, the college is maintaining its commitment to focus on the applied aspects of business subject matter rather than the theoretical only.

Accreditation and professional memberships

The public accounting curriculum of the School of Business Administration is registered with the New York State Education Department and graduates meet the educational requirements for candidacy for the Certified Public Accountant examination.

Graduates who earn a BS degree with a major in general dietetics in the School of Food, Hotel and Tourism Management are qualified to apply for American Dietetic Association internships. Graduates of the coordinated dietetics program meet both the academic and clinical requirements for membership in the American Dietetic Association.

Memberships in professional organizations contribute to the quality of the programs in the College of Business. The School of Business Administration maintains membership in the American Association of Collegiate Schools of Business Assembly and the Middle Atlantic Association of Colleges of Business Administration. Programs in the Department of Food Administration are recognized by the American Dietetic Association. The School of Retailing is a member of the American Collegiate Retailing Association, an organization to promote the profession of retail management and to maintain high standards of education for the retail profession.

The plan of education

Each program within the College of Business includes a “core group” of business subjects in addition to courses in communications, social studies and the humanities. This provides for an understanding of the complex relationships existing within the business organization. The student also concentrates in-depth in a particular subject area, with each successive course built upon accumulated knowledge and skills, providing a challenge equal to the student’s capabilities.

Cooperative employment is an integral part of the program in the College of Business. Under the supervision of the director of experiential learning, each student obtains up to four quarters of practical work experience in varied phases of his or her field of interest, not limited to the local area. Every effort is made to help students find a position that will further their career goals. Since this work experience is related to the student’s total career objective, the students gain more stimulation from class work and are prepared to assume some increased responsibility during successive work periods. The students also develop judgment and initiative, keener understanding of their major field and the special phases which interest them, and greater possibility of moving more rapidly toward their goals after graduation.

The cooperative plan

Cooperative employment arrangements for students in BS degree programs are made prior to the summer quarter of the second year. Students are then assigned to A and B Sections; students in Section A work on their cooperative jobs in the Summer Quarter while those in Section B attend classes. The two sections interchange at the beginning of the Fall Quarter of the third year when students in Section A attend classes and those in Section B are cooperatively employed. This interchange of study-work periods continues until the Summer Quarter of the fourth year when both groups attend classes.

Transfer students are required to complete a minimum number of cooperative employment quarters which are determined by evaluation of the individual’s record and program.

Graduation requirements

The minimum academic requirements in the College of Business are:

AAS degree: The degree of associate in applied science is awarded upon earning a minimum grade point average of 2.0 in the departmentally approved program.

BS degree: The bachelor of science degree is granted if the student has (1) earned a minimum grade point average of 2.0 in the departmentally approved program, and (2) completed the required number of supervised field education assignments for the program.

Writing Policy

Students must demonstrate that they have the writing skills needed for successful entry into their chosen careers. At least three academic quarters before the student’s anticipated completion of baccalaureate degree requirements, the departmental faculty will determine whether the student has met departmental writing standards.
Students whose writing does not meet these standards will have to take the appropriate remedial measures recommended by the department. All students must meet departmental writing standards before they can graduate.

**Transfer Programs**

The College of Business has, for years, integrated transfer students into its baccalaureate degree programs. Typically, students who have earned an associate’s degree or its equivalent prior to enrollment at RIT may normally expect to complete the requirements for the BS degree in two years, which includes six academic quarters and two quarters of cooperative employment experience.

Due to the special requirements of the accounting program and the dietetics program, the amount of transferable credit and the estimated time to complete work for these degrees must be determined by evaluation of each individual’s record.

In every instance, however, it is the policy of the college to recognize as fully as possible the past academic accomplishments of each student.

A transfer student must (1) complete a minimum number of credit hours required for the specific transfer program with an earned minimum grade point average of 2.0 in the departmentally approved program, and (2) complete two quarters of approved cooperative education assignments.

**Graduate programs**

The College of Business offers master’s degree programs in business administration and accounting on a part-time and full-time basis.

The programs are professional in nature and acquaint the student with all aspects of business management as well as offering a concentration in a field of specialization. Specific details are contained in the Graduate Bulletin, available from the Admissions Office.

**Course descriptions**

For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

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**Cooperative education plan**

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<td>RIT</td>
<td>“A” Work</td>
<td>RIT</td>
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Admission at a Glance: College of Business Programs

The major programs in this college are: accounting; business administration, retailing, food administration and tourist industries management, and photo marketing.

All faculty in the college have outstanding academic and practical experience. They are aware of the newest theories and application ideas in their areas of expertise. The Co-op program is especially strong. This helps graduates get jobs.

Accounting—Graduates of the accounting program meet candidacy requirements for the C.P.A. examination. Students interested in the certificate in management accounting (CMA) or careers in general accounting are advised to choose the business administration program. Degrees granted: AAS-two year; B.S.-four year.

Business Administration—Provides business basics in accounting, management, mathematics, economics, computer science, and behavioral science. Students may select concentrations in finance, management or marketing. Degrees granted: AAS-2 year; BS-4 year.

Food Service Administration—Prepares graduates for managerial positions in restaurants and food service operations such as hotels, schools, business firms, and governmental agencies. The Hotel and Tourism Management option develops comprehensive managerial skills for the rapidly expanding field of tourism. Degrees granted: AAS-2 year; BS-4 year.

Dietetics—Graduates can develop within a broad spectrum of interests from service to management positions in hospitals, nursing homes, and in the growing field of community nutrition (sponsored by national, state and local agencies). Also, large national restaurant chains often have dietitians in responsible staff positions. Degrees granted: AAS-2 year; BS-4 year.

Retailing—Prepares students for five broad areas within the retail field: merchandising, operations, finance, personnel, and sales promotion. These competencies will help graduates achieve middle and upper-middle management positions after some years of on-the-job experience. Degrees granted: AAS-2 year; BS-4 year.

Photographic Marketing Management—This rigorous program is designed to provide students with a thorough knowledge of the photographic process and a solid background in business administration. You will be challenged by courses in economics, finance and marketing principles that prepare you for a multifaceted management-level career in the photographic business. Degrees granted; AAS-2 year, BS-4 year.

Freshman Admission Requirements

<table>
<thead>
<tr>
<th>Program</th>
<th>Elem. Algebra; Inter. Algebra; 1 year</th>
<th>Additional mathematics and science</th>
<th>Accounting or equivalent</th>
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</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>any science</td>
<td></td>
<td>Business administration, marketing, or any associate in arts, science or applied science graduate. This is an excellent opportunity for two-year liberal art graduates to enter a career-focused field.</td>
</tr>
<tr>
<td>Food Service Administration</td>
<td>any science</td>
<td></td>
<td>Food service administration; hotel-motel management or equivalent.</td>
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<tr>
<td>Dietetics</td>
<td>chemistry preferred</td>
<td></td>
<td>Hospital dietetics or equivalent.</td>
</tr>
<tr>
<td>Retailing</td>
<td>any science</td>
<td></td>
<td>Retailing; retail merchandising or equivalent.</td>
</tr>
<tr>
<td>Photographic Marketing Management</td>
<td>chemistry preferred</td>
<td></td>
<td>Business administration; marketing or equivalent.</td>
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</table>

O* third of the courses in each program consists of electives in social science, literature, and humanities.

Four years of English are required in all programs, except where state requirements differ.
School of Business Administration

Andrew M. DuBrin, Staff Chairman
E. James Meddaugh, Staff Chairman

Objectives

The basic objective of the School of Business Administration is to create and provide experiences which lead to the continuing growth of the individual in achieving his or her occupational, social, and personal goals. The programs offered provide for an understanding of the concepts essential to competence in business management.

To provide an education that will allow the graduate to perform and grow in this dynamic and complex field of business, the programs in the School of Business Administration are designed to: (1) make students aware of the world about them; (2) open and stimulate students’ minds to initiate-and welcome-new ideas and techniques; (3) provide mastery in a marketable skill.

Programs of Study

Accounting

The field of accounting provides many opportunities for successful and rewarding careers. The Certified Public Accounting major has been registered with the State Education Department of New York which means that graduates, who have maintained a 2.0 GPA in accounting courses, meet the requirements for candidacy for the Certified Public Accountant examination. Additionally, appropriate cooperative work experiences qualify as part of the experience requirement for certification.

Students interested in the Certificate in Management Accounting (CMA) or in careers not requiring the CPA background are advised to choose the General Business Administration program with appropriate elective courses in accounting to meet those special interests.

Certified Public Accounting major

<table>
<thead>
<tr>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>BBUA-211 Managerial Accounting</td>
<td>BBUB-301 Business Law I</td>
<td>BBUA-505, 506 Advanced Accounting I, II</td>
<td>BBUB-434 Operations Management</td>
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<tr>
<td>BBUB-201 Management Concepts</td>
<td>BBUB-401 Behavioral Science in Management</td>
<td>BBUB-404 Administrative Policy</td>
<td>BBUB-405/406 Micro/Macroeconomics</td>
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<tr>
<td>GSEE-301, 302 Economics I &amp; II</td>
<td>BBUQ-351, 352 Statistics I, II</td>
<td>BBUE-405/406 Micro/Macroeconomics</td>
<td>Business Elective</td>
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<tr>
<td>ICSS-200 Survey of Computer Science</td>
<td>Science Electives</td>
<td>Science Electives</td>
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<td>*General Studies Electives-Lower Division</td>
<td>Science Electives</td>
<td>*General Studies Electives-Upper Division</td>
<td>*General Studies Electives-Upper Division</td>
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<td>*Physical Education Elective</td>
<td>*Physical Education Elective</td>
<td>*General Studies Electives-Upper Division</td>
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</tbody>
</table>

First Year: 16 quarter credit hours
Second Year: 16 quarter credit hours
Third Year: 16 quarter credit hours
Fourth Year: 16 quarter credit hours

Upon successful completion of the second year, the associate in applied science degree is awarded.

*See Pg. 28 for Policy on Physical Education.

*See Pg. 78 for General Studies requirements.
## Business Administration

The purpose of the business administration program is to create a total experience in which students develop abilities, knowledge, and attitudes which will help them perform as competent and responsible business administrators. The core curriculum is designed to give the student a basic competence in accounting, economics, finance, marketing, behavioral science, production management, and the administrative process. Toward the end of the second year, the student is encouraged to identify an area of concentration - a field in which he or she plans to exercise the administrative skills.

The elective course options allow the student to concentrate study in accounting, economics, finance management or marketing. The extensive offerings in all these fields permit the student to gain in-depth knowledge which will provide a solid foundation for career development.

Additionally, the program permits the student with special career interests to combine the study of business administration with other areas - such as retailing, food administration, hotel and tourist management, computer science or photography, to name just a few. Program counseling is available to assist developing a program designed for such special combined interests.

### Two-year transfer program

Students who have earned an associate’s degree in business administration will be considered for the transfer program designed to permit such students to complete the requirements of the BS degree in six academic and two cooperative education quarters.

This program is structured to maximize the opportunity for the transfer student to elect courses that will enhance his or her own individual career interests.

### Business Administration major

<table>
<thead>
<tr>
<th>Course Code</th>
<th>First Year</th>
<th>Quarter Credit Hours</th>
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<tbody>
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</table>

Upon successful completion of the second year, the associate in applied science degree is awarded. (See Pg. 78 for General Studies requirements.)

### Two-year transfer program: Business Administration

(For associate’s degree graduates in business)

(A minimum of 102 quarter credit hours must be completed at RIT in order to qualify for the BS degree.)

<table>
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</tbody>
</table>

*See Pg. 28 for Policy on Physical Education.  
*A minimum of six upper level General Studies courses (30 quarter credit hours) must be taken at RIT. See Pg. 78 for General Studies requirements.  
Note: A minimum of eight quarter credit hours of science must be earned. If science transfer credit is allowed, the student must take a comparable number of hours in either business or general studies. Transfer students with insufficient background in accounting, economics, management and/or marketing will be required to take the following courses in place of business electives:  
*Accounting: BBUA-210, 211; Economics: GSSE-301 and 302; Management: BBUB-207; Marketing: BBUM-263.
Photo Marketing Management
Offered jointly by the College of Business and the College of Graphic Arts and Photography, RITs program in photographic marketing is the only one of its type in the country.
This rigorous program is designed to provide students with a thorough knowledge of the photographic process and a solid background in business administration. You will be challenged by courses in economics, finance and marketing that prepare you for a multifaceted management-level career in the photographic business.

% Business electives
(Each gives 4 Quarter Credit Hours)
The following courses are open to management students having the necessary prerequisite courses.

Business electives
Accounting
BBUA-420 Cost Accounting
BBUA-422 Tax Accounting
BBUA-423 C.P.A. Problems
BBUA-504 Auditing
BBUA-505 Advanced
506 Accounting I, II
BBUA-554 Seminar in Accounting

Economics
BBUE-407 Managerial Economics
BBUE-408 Business Cycles and Forecasting
BBUE-443 Recent Economic Policies
BBUE-509 Advanced Money and Banking
BBUE-530 Labor Economics
BBUE-554 Seminar in Economics

Finance
BBUF-502 Money and Capital Markets
BBUF-503 Financial Problems
BBUF-504 International Finance
BBUF-507 Security Analysis
BBUF-508 Portfolio Management
BBUF-510 Financial Institutions
BBUF-554 Seminar in Finance

Management and Quantitative Methods
BBUB-450 Multinational Management
BBUB-531 Labor Relations
BBUB-534 Purchasing
BBUB-535 Planning and Decision Making
BBUB-536 Organization Theory

<table>
<thead>
<tr>
<th>Photographic Marketing Management major</th>
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</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
</tr>
<tr>
<td>BBUB-501, 202, 203 Basic Principles of Photography</td>
</tr>
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<td>BBUB-201 Management Concepts</td>
</tr>
<tr>
<td>BBUB-291, 292 Math</td>
</tr>
<tr>
<td>BBUA-210 Financial Accounting</td>
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<td>BBUA-211 Managerial Accounting</td>
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<tr>
<td>ICSS-200 Survey of Computer Science</td>
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<td>*General Studies (Lower Division)</td>
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<td>*General Studies (Upper Division)</td>
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<td>*Physical Education Elective</td>
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</tbody>
</table>

*See Pg. 28 for Policy on Physical Education.
*See Pg. 78 for General Studies requirements.
Upon successful completion of second year, the associate of applied science degree is awarded.
Total of 196 quarter credit hours is required for the BS degree.
It is recommended that students seeking the baccalaureate degree spend the summer of their junior year in a work block-type program.
Professional electives may be selected from either the College of Business or School of Photographic Arts and Sciences, in consultation with advisor.
Refer to School of Photographic Arts and Sciences for description of photography courses.
School of Food, Hotel and Tourism Management
Teaches Sophistication and Vital Efficiency

George T. Alley, Director

RIT’s School of Food, Hotel and Tourism Management is preparing students for a wide variety of careers ranging from restaurant, hotel and tourism management to dietetics. A career in the food and hospitality industries has become highly specialized in the business world. Efficient and sophisticated management is vital and requires a diversity of skills from many disciplines. Students study accounting, economics, computer science, business management, behavioral science, food preparation, nutrition, and other related areas.

The philosophy of the school dictates that each student must combine practical experience with classroom theory to meet graduation requirements. Under a cooperative employment plan, work assignments are related to the students’ interests in the hospitality field. They are diversified in order to provide a variety of experiences, and are progressive, reflecting growth in knowledge and practical experience. The department requires 1,600 hours of work experience between the sophomore and senior years-more than any other four year hospitality management program. The work-study program provides financial assistance, stimulates classroom experience and serves as a preview for determining career direction in the industry.

Objectives
It is the mission of the School to prepare students to excel in their chosen profession by developing:

1. theoretical and technical knowledge essential to successful attainment of professional, executive level management,
2. the ability to apply knowledge and original thinking to solving management problems,
3. the skills and techniques of leadership,
4. an awareness and desire for a lifetime of learning,
5. an intellectual spirit for constructive thought and action in building a good life and effective citizenship.

Programs of study
Food Service Administration
The program is designed to prepare persons for managerial positions in restaurants and food service operations of differing types of institutions such as hotels, schools, business firms, and governmental agencies.

The hotel and tourism management option is aimed at developing comprehensive managerial skills for the rapidly expanding and complex field of tourism.

General dietetics is a well defined and structured professional program for persons interested in pursuing a career in the administrative and/or therapeutic aspects of food and nutritional needs in health care facilities.

<table>
<thead>
<tr>
<th>Year</th>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
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<td>BBAM-331, 332 Food Production Management I, II</td>
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</tbody>
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\*See Pg. 28 for Policy on Physical Education.
\*See Pg. 78 for General Studies requirements.
\tUpon successful completion of the second year, the associate in applied science degree is awarded.
Hotel and Tourism Management Option

The hospitality service industries employ more people than any other industry in the nation. These industries cover the wide scope of public feeding, lodging and tourism. During the first two years, emphasis in the program is upon basic course work which is common to food operations and is directed at those aspiring to managerial positions in restaurants, hotels, motor lodges, resorts, clubs, airlines, colleges and schools, and other types of accommodation businesses. In the third and fourth years, students may elect either the Food Service Administration or Hotel and Tourism Management option according to their career directions.

The U.S. Department of Labor predicts that between 1978 and 1985 over 7,000 hotel managers or assistant manager positions will be available for qualified personnel in each one of those years.

The Hotel and Tourism Management option is a professionally oriented curriculum for students seeking careers involving the development, management, and operation of hotel, tourist and recreation enterprises. The composite of discipline areas allows the student to understand the physical characteristics of tourist and recreation properties, as well as gaining the business expertise to manage and successfully market their recreational attributes.

Opportunities

Our nation is now a service economy which means that the majority of employment opportunities will be service oriented. The food service area ranks as the nation's fourth largest industry while hotels rank seventh. Combined, they enjoy a rank of third. The closely interrelated tourism industry is one of the fastest developing businesses in the United States. With the continued expansion of U.S. food companies and hotels into foreign markets, international tourism offers ever increasing opportunities for professionally trained individuals.

Cooperative Work Experience

RIT's hospitality education program is relevant to what's happening in the world today by blending classroom study with on-the-job, paid work experience. Students study the theory of a discipline and have 1,600 hours of practical application. Their diversified academic and practical backgrounds enhance their career opportunities.

Two-Year transfer program for Food Administration and Hotel and Tourism Management

Students who have earned an appropriate associate's degree or its equivalent prior to enrollment at RIT may normally expect to complete the requirements for the B.S. degree in two years which includes six academic quarters and two quarters of cooperative employment experience.

Transfer students must complete a minimum of 102 quarter credit hours with an earned minimum grade point average of 2.0 in the departmentally approved program, and complete two quarters of approved cooperative education assignments.

Transfer students with less than two years of college or from other educational backgrounds can be accommodated. The amount of transfer credit will be determined by evaluation of the individual's transcript.

In every instance, it is the policy of the college to recognize as fully as possible the past academic accomplishments of each student.

Hotel and Food Options

For Food/Hotel/Tourism majors, concentrations may be developed in Marketing, Accounting and Finance. These concentrations can be created by selecting from the following list of elective courses:

Marketing
BBUM-420 Consumer Behavior
BBUM-510 Consumer Services Analysis
BBUM-551 Marketing Research
BBUM-552 Advertising
BBUM-553 Sales Management
BBUM-555 International Marketing

Accounting & Finance
BBUA-211 Managerial Accounting
BBUA-308, 309, 310 Intermediate Accounting I, II, III
BBUA-503 Financial Problems
BBUF-554 Seminar in Finance

Students may either specialize in or combine areas of food, lodging or resort and recreation management.

General Dietetics and Nutritional Care

Dietetics encompasses the complete range of nutritional services from management of food service systems to therapeutics. The term dietitian has been defined as a specialist educated for a profession responsible for the nutritional care of individuals and groups. Many in this field have positions of management, not only on the staff of hospitals, but also in supervisory posts in government agencies-national, state and local—and in the growing field of community nutrition.

Opportunities

As a dietitian you will be involved with people of all ages, cultures and economic means. If you enjoy people and learn to understand them as individuals, then you can help solve their food needs.

Dietitians are health professionals who apply the science and art of human nutrition. They help individuals and families choose foods for adequate nutrition in health or disease throughout the life cycle. Dietitians also supervise the preparation and service of food to groups, develop modified diets, participate in nutrition research and supervise the nutritional aspects of health care.

You may become a___

Clinical dietitian

You will be a member of the health care team which may include physicians, dentists, nurses, psychologists, medical social service workers, and others. Hospitals, clinics, and other health care facilities require your professional services. You will assess nutritional needs, develop individualized dietary plans and provide dietary counseling. In an organization that provides foodservice, you cooperate and coordinate activities with the department management team.

Administrative dietitian

You will be a member of the department's management team responsible for the food service systems that provide optimal nutrition and quality food. You will establish and maintain standards of food production and service, sanitation, safety and security. You will administer personnel policies and plan orientation and inservice educational programs. You will develop menu patterns and evaluate their acceptance. You will develop specifications for buying food, equipment and supplies. Your
services are sought by hospitals, universities, schools, industries and other institutions providing group food service.

Community dietitian
You will function as a member of the community health care team. Your job is to plan and coordinate the nutritional aspects of improved health and the prevention of disease. You will counsel individuals and/or families in nutritional principles, food selection and economics, and adapt teaching plans to a client’s lifestyle. You can work for a variety of community organizations and government agencies which may include day care centers, public health facilities and others.

With additional work experience and/or advanced degrees, you may work as a dietetic consultant, research dietitian or teach in the field of dietetics.

Programs
The School of Food, Hotel and Tourism Management offers two options in dietetics: the traditional program in general dietetics and the Coordinated Undergraduate Program (CUP) in general dietetics.

I. The traditional program in general dietetics
The curriculum in general dietetics leading to a baccalaureate degree at RIT meets the education requirements of the American Dietetic Association. The courses included are in the areas of physical, biological and social sciences; food principles and management; nutrition in health and disease; accounting and finance. Four year students must complete three quarters of approved cooperative work experience.

Due to the special professional requirements of the American Dietetic Association, the amount of transferable credit and estimated time to complete work for the BS degree in General Dietetics must be determined by evaluation of each individual's record.

Transfer students must complete a minimum of 102 quarter credit hours with an earned minimum grade point average of 2.0 in the departmentally approved major, and complete two quarters of approved cooperative education assignments.

In addition to completing an approved academic program, persons seeking certification as a Registered Dietitian (R.D.) need to have an approved clinical experience and pass the qualifying comprehensive examination of the American Dietetic Association.
II. Coordinated Undergraduate Program in general dietetics (CUP)

The coordinated dietetics program combines the undergraduate curriculum and planned clinical study to meet the academic and clinical requirements for membership in the American Dietetic Association (ADA).

This program is planned to integrate formal teaching and supervised clinical experience in hospitals, nursing homes, school food services and community health agencies. Clinical facilities in several large hospitals provide a comprehensive health care environment for student learning. Academic and clinical phases are taught together to reinforce each other. Learning experience involves team teaching by RIT faculty and clinical instructors, each contributing their expertise in the profession.

Completion of the program leads to a bachelor of science degree plus ADA membership. Successful completion of a national examination qualifies the member to become a registered dietitian.

All RIT dietetics students are enrolled in the traditional program in general dietetics in the first two years. Upon completion of the necessary preprofessional (first and second year) courses, students may apply for admission into the coordinated dietetics program.

Applications for the coordinated undergraduate program must be submitted by March 1 to be considered for admission into the professional phase the following September.

Cooperative work experience is not required of students in the coordinated program because clinical hours have been planned in the junior and senior years of the professional phase.

Another set of CUP application forms from the School must be completed and submitted to the Department by March 1.

Two-year transfer program for coordinated dietetics

RIT makes every effort to facilitate transfer credit. Due to specific areas of study required by the American Dietetic Association and RIT, transfer students applying for admission to the professional phase of CUP in Dietetics must meet course prerequisites listed in the preprofessional phase. The following areas of study must be completed:

- Food and Nutrition Principles
- Microbiology
- General and Organic Chemistry
- Biochemistry I
- Physiology
- Management Courses:
  - Mathematics, Accounting and Statistics
  - Economics

TOTAL of 24 credit hours of General Studies (including Introduction to Sociology)

Applicants are required to have a minimum grade point average of 2.5 on the basis of 4.0 scale from two years of basic preprofessional courses before they are considered for admission in the coordinated program.

Students who are not accepted in the coordinated program may be admitted to the traditional program in general dietetics. Due to the special professional requirements of the American Dietetic Association, the amount of transferable credit and estimated time to complete work for the BS degree must be determined by evaluation of each individual’s transcript.

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### Dietetics and Nutritional Care programs (common curriculum, first two years)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Hours</th>
</tr>
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<tbody>
<tr>
<td>BFAM-215</td>
<td>Food Principles</td>
<td>5</td>
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<tr>
<td>**SCHG-201</td>
<td>General Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>**SCHG-211</td>
<td>General Chemistry-Lab</td>
<td>1</td>
</tr>
<tr>
<td>BBUB-210</td>
<td>Financial Accounting</td>
<td>4</td>
</tr>
<tr>
<td>BBUQ-201</td>
<td>Mathematics</td>
<td>4</td>
</tr>
<tr>
<td>**SCHG-202</td>
<td>Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>**SCHG-212</td>
<td>Organic Chemistry-Lab</td>
<td>1</td>
</tr>
<tr>
<td>BBUB-201</td>
<td>Management Concepts</td>
<td>4</td>
</tr>
<tr>
<td>**SCHG-203</td>
<td>Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>BFAD-213</td>
<td>Nutritional Principles</td>
<td>4</td>
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<td>ICSS-200</td>
<td>Survey of Computer Science</td>
<td>4</td>
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<td>*General Studies-Lower Division</td>
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<tr>
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*These courses offered only in the quarters listed on the schedule.

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First Year

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<th>Course Title</th>
<th>Hours</th>
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<tr>
<td>SBIG-210</td>
<td>Human Microbiology/Disease</td>
<td>3</td>
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<tr>
<td>SBIG-220</td>
<td>Human Microbiology/Disease-Lab</td>
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</tr>
<tr>
<td>BFAM-321</td>
<td>Food &amp; Beverage Merchandising</td>
<td>2</td>
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<tr>
<td>BBUB-401</td>
<td>Behavioral Science</td>
<td>4</td>
</tr>
<tr>
<td>**SCHG-204</td>
<td>Biochemistry</td>
<td>4</td>
</tr>
<tr>
<td>BBUQ-351</td>
<td>Statistics I</td>
<td>4</td>
</tr>
<tr>
<td>GSSE-301</td>
<td>Economics I</td>
<td>4</td>
</tr>
<tr>
<td>SBIO-305</td>
<td>Anatomy &amp; Physiology</td>
<td>4</td>
</tr>
<tr>
<td>*General Studies-Lower Division</td>
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<tr>
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Second Year

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<tr>
<td>BBUB-401</td>
<td>Behavioral Science</td>
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<tr>
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</tbody>
</table>

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*These courses offered only in the quarters listed on the schedule.

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See Pg. 78 for General Studies requirements.

Upon successful completion of the second year, the associate in applied science degree is awarded.
### Dietetics and Nutritional Care Program (Traditional) (Third and Fourth Years)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Credit Hours</th>
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<tbody>
<tr>
<td>Fall</td>
<td>Winter</td>
</tr>
<tr>
<td>BFAM-415 Food Service I</td>
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<tr>
<td>BFAM-331 Food Production II</td>
<td>4</td>
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<tr>
<td>BFAM-332 Food Production III</td>
<td>4</td>
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<td>General Studies Elective Upper Division</td>
<td>5</td>
</tr>
<tr>
<td>BFAM-416 Food Science II</td>
<td>4</td>
</tr>
<tr>
<td>BFAM-331 Food Production I</td>
<td>4</td>
</tr>
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</table>

* BFAD-525 Advanced Nutrition/Diet Therapy .................................................. 5
* BFAD-526 Advanced Nutrition/Diet Therapy .................................................. 5
* BFAD-550 Community Nutrition ................................................................. 2
* BFAD-552 Geriatric Nutrition ................................................................. 2
* BFAD-554 Maternal and Infant Nutrition .................................................... 4
* BFAD-563 Clinical Dietetics IV ................................................................. 4
* BFAD-552 Geriatric Nutrition ................................................................. 2
* BFAD-554 Maternal and Infant Nutrition .................................................... 4
* BFAD-511 Advanced Food Service Operations ............................................... 4

*These courses offered only in the quarters listed above.

*See Pg. 78 for General Studies requirements.

### Dietetics and Nutritional Care Program (Coordinated Undergraduate Program) (Third and Fourth Year)

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>Winter</td>
</tr>
<tr>
<td>BFAD-402 Dietetic Environment</td>
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</tr>
<tr>
<td>BFAM-415 Food Science I</td>
<td>4</td>
</tr>
<tr>
<td>General Studies Electives Upper Division</td>
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<tr>
<td>BBUB-407 Legal Environment</td>
<td>4</td>
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<tr>
<td>BFAM-416 Food Science II</td>
<td>4</td>
</tr>
<tr>
<td>BFAM-331 Food Production Management I</td>
<td>4</td>
</tr>
<tr>
<td>BFAD 314 Sanitation &amp; Safety</td>
<td>4</td>
</tr>
<tr>
<td>BFAM-332 Food Production Management II</td>
<td>4</td>
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<tr>
<td>BFAM-335 Business Food Elective</td>
<td>4</td>
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<tr>
<td>BFAM-331 Food Production I</td>
<td>4</td>
</tr>
<tr>
<td>BFAD-525 Geriatric Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>BFAD-550 Community Nutrition</td>
<td>2</td>
</tr>
<tr>
<td>BFAD-554 Maternal and Infant Nutrition</td>
<td>4</td>
</tr>
<tr>
<td>BFAD-563 Clinical Dietetics IV</td>
<td>4</td>
</tr>
<tr>
<td>BFAD-562 Clinical Dietetics III</td>
<td>4</td>
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<tr>
<td>BFAD-563 Clinical Dietetics IV</td>
<td>4</td>
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<tr>
<td>BFAD-562 Clinical Dietetics III</td>
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<tr>
<td>BFAD-563 Clinical Dietetics IV</td>
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<td>BFAD-563 Clinical Dietetics IV</td>
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<tr>
<td>BFAD-563 Clinical Dietetics IV</td>
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<tr>
<td>BFAD-562 Clinical Dietetics III</td>
<td>4</td>
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</tbody>
</table>

*See Pg. 78 for General Studies requirements.

### School of Retailing

John S. Zdanowicz, Director

The major objective of the School of Retailing is to educate young men and women to be able to move toward middle and upper middle management positions in the broad dimensions of the retail industry. The student should attain a clear understanding and competency of the entry level expectations of the field that will serve as a springboard for rapid personal and professional growth.

Retailing at RIT enables the students to attain a basic understanding of all aspects of a business enterprise-accounting finance, management and marketing; depth of understanding of the basic concepts of retailing, and their current applications; an introduction to the common tools of management in the forms of computers and statistical analysis; a broad background in the natural and social sciences which shape the retail environment, and the attitudes that will assist the student in setting and attaining personal and professional goals in this area.

Retailing is a broadly defined program and provides a foundation for many careers in addition to the traditional store merchandising function. Students can go into positions in store operations, personnel, branch store management or sales promotion in the traditional retail industry. Others will find a career in working with retailers from the perspective of manufacturers or as specialists in promotion or other aspects of the retail industry.

Merchandising covers primarily the process of planning selecting, buying, and selling; operations deals with the general operations of the retail enterprise and tends to focus on the responsibilities of store managers and independent retailers; personnel is responsible for selection, training, placing, advancement and welfare of all employees; sales promotion is responsible for advertising, display, and the many forms of publicity in which a retailer engages.
Retailing Program
The program is designed to offer a specialized curriculum that provides an in-depth understanding of the retail industry and its tasks, along with a comprehensive foundation in the theory and practice of the management of any enterprise. In addition to the required core of business and retail courses, the student may elect concentrations within the retail offerings. Merchandising is the heart of the retail program and includes electives in buying and specialized seminars in current topics in merchandising that reflect the ever-changing dimensions of the field. Fashion merchandising is a group of elective courses in the history and trends of fashion. Within merchandising, this area represents one of the most significant classifications within the retail spectrum.

Cooperative Education
The cooperative employment component of the program allows the student to explore the realities of a retail career while gaining a full year of actual experience during the junior and senior years. The retailing courses are designed to build on this experience to integrate courses and employment into a unified learning experience. Retail students enjoy a wide range of co-op opportunities in retail establishments in major cities from Chicago to Boston to Atlanta. Depending on the interests of the student, co-op can be developed in a wide range of situations in addition to the traditional retail store environment.

The academic program is designed so that a student may take advantage of an extended cooperative employment opportunity during the Fall Quarter through the Christmas holiday. This is the most ideal period to gain retail experience. The Winter Quarter academic program is specially structured for those students returning to school in January.

Transfer students
Students who have earned an appropriate associate’s degree or its equivalent prior to enrollment at RIT may normally expect to complete the requirements for the B.S. degree in two years, which includes six academic quarters and two quarters of cooperative employment experience.

Transfer students must complete a minimum of 102 quarter credit hours with an earned minimum grade point average of 2.0 in the departmentally approved program, and complete two quarters of approved cooperative education assignments.

Transfers with less than two years of college or from other educational backgrounds can be accommodated. The amount of transfer credit will be determined by evaluation of the individual’s transcript.

In every instance, it is the policy of the college to recognize as fully as possible the past academic accomplishments of each student.

Retailing professional electives
(Each carries 4 Quarter Credit Hours)

BRER-511 Textiles (Basic)
BRER-521 Fashion (History)
BRER-524 Fashion (Accessories)
BRER-523 Fashion (Current)

BRER-531 Interior Design (Basic)
BRER-532 Interior Design I
BRER-533 Interior Design II
BRER-545 Visual Merchandising
BRER-554 Seminar in Retailing

Additional electives may be chosen from the School of Business Administration or approved electives from other colleges of the Institute.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.
The College of Continuing Education (CCE) is The Place to Grow, personally, academically and professionally. For more than a century and a half, RIT has been dedicated to continuing education. This commitment was begun in 1829 when RIT’s predecessor, the Athenaeum, brought culture to the frontier town through forums, lectures and concerts.

From its beginning, RIT has been attuned to the career needs and technologies of the times. Today, with our roots firmly established in career education, the College of Continuing Education still holds to the principles of education as a continuing process, designed to meet the objectives and life-styles of the community it serves. CCE serves its many publics by adapting the resources of the entire Institute to meet local, regional and national needs for continuing education.

For many people CCE provides an alternative to full-time study inasmuch as personal commitments, work schedules or other obligations are accommodated through part-time study at night, on weekends or during the day. Working closely with the other nine colleges of the Institute, as well as with industry and the community, CCE develops flexible educational opportunities for continuing students. Learning is a life-long process. The College of Continuing Education provides the tools necessary to implement that process, whether it be for personal or professional growth.

Class hours and course offerings are scheduled to meet the specific needs of employers, employees and non-working people alike. As a result, many people have been able to attain educational goals not otherwise available.

The college aims to provide higher educational experiences for all who desire them. Under the CCE Open Admission Policy, students are free to take any course or to pursue any degree for which they have sufficient background. Academic advisors are available throughout the year to answer questions regarding course or program choices.

For students who choose to follow a specific program of study, a variety of options is available in fields as diverse as management and photography, machine tool and general education.

The college confers the diploma of the Institute in thirteen fields, as well as a certificate in management.

Twenty-two options lead to the associate in applied science; the associate in arts degree is offered in general education; and the associate in science degree is offered in engineering science.

Fourteen programs lead to the bachelor of science. Programs designed primarily for transfer students with associate degrees are offered, leading to the bachelor of technology degree in electrical, mechanical, manufacturing engineering technology, and computer technology.

For graduate students the master of science degree is offered in applied and mathematical statistics.

In addition to credit courses, the college offers workshops, seminars, and short courses to meet specific needs of community groups, professional organizations, agencies, industries, business and government. Non-credit programs include offerings as diverse as career exploration seminars, workshops in professional development for secretaries, breakfast seminars for managers, and continuing education for health field personnel.

Another alternative offered through CCE is the RIT Summer Session. Along with the opportunity for RIT students to continue work in chosen academic programs, RIT’s unique summer offerings also feature learning opportunities for students from other colleges and representatives from business and industry. Concentrated courses combining the resources of the entire Institute are offered in numerous subject areas and unusual formats.

There’s much more to the College of Continuing Education. If you’d like information about courses, programs, Summer Session and special events, write or phone:

Rochester Institute of Technology
College of Continuing Education
One Lomb Memorial Drive
P.O. Box 887
Rochester, New York 14623
(716) 475-2234
College of Engineering

Richard A. Kenyon, Dean

The programs offered by the College of Engineering are planned to prepare students to fit into present-day industrial and community life, and to lay a foundation for graduate work in specialized fields. This is accomplished by offering curricula which are strong in fundamentals, yet lead to specialization in the junior and senior years, and maintain a balance among humanistic-social subjects, the physical sciences, and professional courses.

Five-year programs
The college offers four five-year cooperative programs leading to the bachelor of science degree with majors in electrical, computer, industrial and mechanical engineering.

Resources
The Departments of Electrical, Industrial and Mechanical Engineering maintain extensive laboratory facilities in the Gleason Engineering Building to provide students with ample opportunities to work with up-to-date equipment in their respective fields. The laboratories are structured and outfitted to provide basic laboratory work as a part of the engineering curricula, to offer students the opportunity for independent laboratory projects, and to provide facilities for fundamental research by students and faculty. The Computer Engineering Department utilizes its own growing facility plus those of the Electrical Engineering Department and the School of Computer Science and Technology.

The cooperative plan
Students in the five-year cooperative programs attend classes during the Fall, Winter, and Spring Quarters of their first and second years. Prior to the beginning of the third year, students are assigned to A and B Sections; in any given quarter, one section follows cooperative employment while the other attends classes. Employment arrangements are made by each student through the co-op coordinator in Central Placement. The chart illustrates the cooperative program as offered by the College of Engineering.

Cooperative Education plan

<table>
<thead>
<tr>
<th></th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<tbody>
<tr>
<td>- 1st and 2nd yrs.</td>
<td>RIT</td>
<td>RIT</td>
<td>RIT</td>
<td>Vacation</td>
</tr>
<tr>
<td>3rd, 4th yrs. A</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
<td>Work</td>
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<td>Work</td>
<td>f RIT</td>
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</tr>
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<td>5th yr.</td>
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<td>B</td>
<td>Work</td>
<td>RIT</td>
<td>RIT</td>
<td>-</td>
</tr>
</tbody>
</table>

Transfer programs
The College of Engineering at RIT has for many years admitted graduates from two-year engineering science programs at community colleges and technical institutes. The rapid integration of these transfer students into the baccalaureate programs in significant numbers has provided an added dimension and a uniqueness to the College of Engineering.

In virtually all cases, accepted graduates of the two-year engineering science programs are able to enter the regular third year program in any of RIT’s four engineering programs.

For those students who have completed programs in electrical or electronics technology with a high scholastic average, there is a three-year AAS Transfer Program leading to a bachelor of science degree in electrical engineering. Two-year electrical technology graduates will, of course, wish also to consider the educational opportunities available to them through RIT's upper-division bachelor of technology programs in the School of Engineering Technology.

Orientation
The engineering programs are strongly oriented toward mathematics and the physical sciences. Emphasis is placed upon the study of these subjects in the first two years to provide a foundation for the applied sciences and for the engineering subjects which are scheduled later in the programs.

Careers
Graduates qualify for professional work in design and development of equipment and systems, research and experimental work, supervision of technical projects and managerial positions in industry. Increasing numbers of graduates continue their education for the master of science or the doctor of philosophy degrees.

Entrance requirements (BS)
Applicants for the engineering programs must be high school graduates, and must have completed elementary and intermediate algebra, plane geometry, trigonometry, and both physics and chemistry while in high school. Advanced algebra, solid geometry, and calculus, while not required, are highly desirable. The applicant's proficiency in the required entrance subjects should be high since these provide a good index of his or her ability to cope with the more advanced courses in the science programs.

All applicants are required to take entrance examinations as described in the general section of this bulletin.

Graduation requirements
The minimum requirements for the bachelor of science degree in the College of Engineering are:
1. Satisfactory completion of the program with no failing grades.
2. A minimum number of quality points equal to at least twice the number of quarter hours required.

Prospective students should consult the individual program descriptions for additional information.
Accreditation
The programs of study leading to the bachelor of science degree in electrical engineering, industrial engineering and mechanical engineering are accredited by the Accreditation Board for Engineering and Technology (ABET). The college is a member institution of the American Society for Engineering Education.

The program in Computer Engineering is “registered for professional purposes” with the State Education Department of the State of New York as a preparatory step to seeking ABET accreditation. All graduating seniors are eligible to sit for the Intern Engineer portion of the New York State Professional Engineering Examination during their final quarter in school.

Part-time students
An increasing number of students desire to pursue their engineering degree on a part-time basis while maintaining full-time employment in industry. In response to the needs of such students, the College of Engineering has expanded its scheduling of classes in the upper-division of the Mechanical and Electrical Engineering programs so that these courses may be taken during the late afternoon and early evening as well as during the day. Students wishing to pursue part-time studies must qualify for matriculation as regular third year engineering students through normal admission procedures. As with full-time students, part-time students are required to complete the equivalent of five quarters of approved cooperative work experience. Arrangements are made for part-time students to utilize approved portions of their regular employment to satisfy the co-op requirements. Persons wishing further information on part-time studies in either Electrical or Mechanical Engineering should contact the relevant department head.

Graduate degrees
Programs leading to the master of science degrees are offered in both the electrical engineering and mechanical engineering departments. The programs may be pursued on a part-time or full-time basis since the majority of courses are offered in the late afternoon and early evening.

In addition, the College of Engineering offers a post-baccalaureate professional program leading to the master of engineering degree. The degree is without discipline designation, and study may be pursued in such areas as electrical engineering, industrial engineering, mechanical engineering, environmental studies, engineering management, and systems engineering. The program is unique in that it extends the undergraduate cooperative concept to the graduate level in an industrial internship for which academic credit is granted. Designed as a full-time program, the master of engineering degree may also be pursued on a part-time basis by engineers employed in local industry.

For further information on graduate programs in the College of Engineering, request the Graduate Bulletin or contact the associate dean for Graduate Programs, College of Engineering.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description Catalog from the Admissions Office.
Admission at a Glance:  
College of Engineering Programs

Four five-year cooperative programs leading to the BS degree are offered. The four majors are: electrical, computer, industrial and mechanical engineering.

The programs prepare students for employment in the modern industrial world. There are extensive laboratory and experimental facilities available for student use. The programs in mechanical, industrial, and electrical engineering are accredited by the Accreditation Board for Engineering and Technology.

Electrical Engineering—Students first develop proficiency in mathematics, science, and engineering fundamentals. Fundamental electrical studies include: electromagnetics, energy conversion, circuit theory, and electronics. Degree granted: BS-5 year.

Computer Engineering*—This program offers a blend of computer science and electrical engineering which is designed to enable the graduates to intelligently incorporate computers within engineering products. Degree granted: BS-5 year.

Industrial Engineering—Students learn design improvement and installation of integrated systems of people, materials, and equipment. Students also develop specialized knowledge in mathematics and physical science with methods of engineering and design. Degree granted: BS-5 year.

Mechanical Engineering—Students devote the first two years to the study of mathematics, physics, chemistry, and mechanics. There are two options in upper years—applied mechanics, and thermal fluid sciences. Degree granted: BS-5 year.

Electrical Engineering AAS Transfer program—This is a specialized program that provides a clearly defined route to the bachelor of science degree in Electrical Engineering for holders of an A.A.S degree in electrical technology. Incoming students enroll in transfer adjustment courses the summer before entering as third-year students. Degree granted: BS-3 year, at RIT.

*About 20 per cent of the program consists of electives in social sciences, literature, and humanities.

<table>
<thead>
<tr>
<th>Freshman Admission Requirements</th>
<th>Transfer Admission with junior standing</th>
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<tbody>
<tr>
<td><strong>Electrical Engineering</strong></td>
<td><strong>Engineering Science (liberal arts with math/science option considered on individual basis), or Electrical Technology (A.A.S. Degree)</strong></td>
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<tr>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry</td>
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<th><strong>Computer Engineering</strong></th>
<th><strong>Engineering Science (liberal arts with math/science option considered on individual basis).</strong></th>
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<th><strong>Engineering Science (liberal arts with math/science option considered on individual basis).</strong></th>
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<thead>
<tr>
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<th><strong>Engineering Science (liberal arts with math/science option considered on individual basis).</strong></th>
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<td>2.50</td>
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<tr>
<td>additional mathematics</td>
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</table>

*Four years of English are required in all programs, except where state requirements differ.  
A substantial number of professional and free electives are also available.
Computer Engineering

Roy S. Czemikowski, Head

The computer engineering program is effectively an interdisciplinary program between electrical engineering and computer science which embellishes their offerings in this relatively new field of study. The program is designed to prepare the graduate both to design engineering products that closely incorporate or communicate with computers and also to undertake significant graduate study where sophisticated computer design can actually be addressed.

This program studies the electrical engineering aspects of the circuits and devices used in large scale digital systems and the mathematical theories of their description to permit the graduate to engage in the design and construction of these systems.

In addition, this program also investigates computer science topics in the areas of computer architecture, microprogramming, operating systems, and especially real time computation in order to intelligently integrate hardware and software in engineering products. The intensive laboratory requirements ensure the graduate of significant experience with various microcomputers in controlling engineering systems.

The cooperative education program of the final three years enables the student to apply the principles and techniques of computer engineering to real industrial problems and thereby provide a stronger framework on which to build in the academic courses. These co-op work periods alternate with academic quarters over the last three years of the program.

Principal field of study

For students matriculated in the interdisciplinary computer engineering program, the principal field of study is defined to be all courses taken in the College of Engineering and the School of Computer Science and Technology. Matriculated students not maintaining a 2.00 cumulative grade point average in their principal field of study are subject to academic probation and suspension according to Institute policy.
In today’s world, engineering decisions are rarely taken in a vacuum but rather within an ethical and socio-economic framework. For this reason, spread throughout the curriculum are general studies courses which permit students to increase their understanding of this decision framework and to improve their ability to communicate effectively.
Engineering Science transfer program
A powerful force in current engineering education is the emergence of the community college offering two-year programs in engineering science leading to the associate in science degree. In New York State these programs have resulted from the combined efforts of educators from both public and private institutions, and from both community colleges and major universities. Accordingly these programs represent and provide the general footing upon which engineering education must be based. The electrical engineering program at RIT is sufficiently related to these programs that transfer is possible and encouraged directly into the third year of the RIT curriculum, with a full two years' credit granted to the holders of an accredited AS degree in engineering science. Transfer students should see page 28 for policy on physical education.

AAS Transfer Program
Dr. Kenneth Hsu, Coordinator

In addition to the transfer of students holding the AS degree in engineering science, the Electrical Engineering Department at RIT has a long and rewarding history of students transferring into electrical engineering from the successful completion of AAS programs in electrical technology at community colleges. A specialized program for these students is available in our AAS Transfer Program. This program is unique within the State of New York. It provides a clearly defined avenue to the bachelor of science degree for holders of the AAS degree in electrical technology.

Incoming students are brought to the campus in the summer (fourth) quarter immediately following their AAS program. On the basis of personal interviews with faculty members from mathematics, computer science, and electrical engineering, an individual program is designed for each AAS transfer student. The objective is to use this initial summer quarter to bring the students to the point where the remainder of their bachelor of science program can be constructed from existing, regularly scheduled Institute courses. Beyond this initial summer quarter, the AAS transfer student follows a co-op work plan leading to the bachelor of science degree at the end of his or her third academic year at RIT. Professional and free elective opportunities are also provided in this plan for the expression of individual student interests.

AAS Transfer Program
This is a 'typical' curriculum for a student, with an AAS degree, who transfers to RIT's Electrical Engineering Department with 1 year of engineering calculus.

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<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
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<td>EEEE-643 Digital Electronics</td>
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All IME transfer students will be required to take a minimum of 115 quarter credit hours at RIT, minus applicable transfer credits.
IME transfer students have Co-op during Fall and Spring quarters.
See Pg. 28 for Policy on Physical Education.
See Pg. 78 for General Studies requirements.
Summer prior to third year.
Industrial Engineering

Richard Reeve, Head

Industrial engineering differs from other branches of the engineering profession in at least two ways. First, industrial engineering education is relevant to most types of industry and commercial activity. Second, it is that major branch of engineering concerned not only with machines, but with people as well.

Specifically, industrial engineering is concerned with the design, improvement, and installation of integrated systems of people, materials, and equipment. It draws upon specialized knowledge and skill in the mathematical and physical sciences, together with the principles and methods of engineering analysis and design.

The industrial engineering curriculum covers the principal concepts of human performance, mathematical modeling, computer programming and applications, management systems, and manufacturing processes. Through the use of professional and free electives the I.E. student, in consultation with his/her advisor, is able to build a minor concentration of study in Business, Mechanical Engineering, Electrical Engineering, Computer Science, and related fields.

Careers

Some of the activities of industrial engineers include work measurement, operations research, applied statistics, human factors, plant layout, materials handling, production planning and control, quality control, manufacturing, and management consulting.

Balance rather than specialization has allowed our graduates to pursue varied career paths. Examples of this diversity, along with the role that an industrial engineer might function within, are reflected through the following partial listing of recent industrial engineering co-op assignments.

1. Hospitals
   a. improve efficiency of a patient therapy department
   b. optimal patient scheduling for physicians
   c. establishment of a medical peer review system
   d. establishment of outpatient clinic staffing levels

2. Manufacturing industries
   a. product life studies
   b. layout of new and existing work areas
   c. design and implementation of an information system
   d. investigation of production processes involved in cleaning carbide dies
   e. economic investigation-new versus repaired breakdown analysis
   f. investigation of waiting lines in connection with a product line
   g. investigation of delivery service which involved scheduling, route modification, and material handling
   h. assisted in setting up a production control monitoring board
   i. computer programming relating to pricing policies, blending problems, and truck scheduling
   j. downtime-studies of various operations using time study and work sampling
   k. development and computerization of a forecasting model

Transfer programs

Transfer programs for industrial engineering students are arranged on an individual basis. This allows a student to build an industrial engineering program which best takes into account his or her previous education and work experience. Students completing an AAS in engineering science normally receive credit for the first two years and start their program at RIT with the third year class.

Further information

If you are interested in learning more about the opportunities within industrial engineering and/or the nature of the cooperative work assignments in industrial engineering, write to the department for further information.

### BS degree in Industrial Engineering

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<th>Year</th>
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<td>First Year</td>
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<tr>
<td></td>
<td>EIEI-201 Introduction to Industrial Engineering</td>
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<td>EIEI-202 Computing for Industrial Engineers</td>
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<td>SCHG-208, 209 General Chemistry for Engineers I, II</td>
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<tr>
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<td>EMEM-331 Mechanics I (Statics)</td>
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<td>EMEM-332 Mechanics II (Dynamics)</td>
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<td>EIEI-420 Work Measurement &amp; Analysis I</td>
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<td>EIEI-520 Engineering Economy</td>
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<td>EIEI-481 Management Theory &amp; Practice</td>
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<td>EIEI-415 Human Factors I</td>
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<td>EIEI-401 Introduction to Operations Research I</td>
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<td>EIEI-430 Engineering Design</td>
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<td>EIEI-560 Project Design</td>
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<td>Free Elective</td>
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*At least one professional elective must be selected from the following courses: EMEM-431 Thermodynamics; EMEM-415 Fluid Mechanics I, EEEE-461, 462 Electrical Engineering I, II.

*See Pg. 29 for Policy on Physical Education.

*See Pg. 19 for General Studies requirements.
Mechanical Engineering

Bhalchandra V. Karlekar, Head

Mechanical engineering is perhaps the most comprehensive of the engineering disciplines, with the mechanical engineer's interests ranging from the design of missile systems to the design of energy efficient systems. The spectrum of professional activity for the mechanical engineering graduate runs from research through development and design to manufacturing and sales. Because of their comprehensive training and education in the areas of production and economics, mechanical engineers are often called upon to assume management positions.

The first two years of the undergraduate program are devoted to an intensive study of mathematics, physics, chemistry, and mechanics—the basic tools of the engineer—and to a thorough grounding in the humanities. The final three years of the program integrate the cooperative work experience with the professional subject matter of the mechanical engineering discipline.

In the fourth and fifth years, the mechanical engineering student selects one of two options for intensive study. These areas of concentration are in the two traditional branches of mechanical engineering: namely applied mechanics and thermal fluid science. Both options offer a core of three courses and a number of additional electives.

Students may use a total of four professional and free electives to extend their educational experience in their options. They may also use courses from other options and graduate levels as professional and free electives. Such flexibility permits each individual to prepare for employment or graduate school in his or her specific area of interest.

Transfer programs

The Mechanical Engineering Department at RIT has a long-standing tradition of admitting graduates from two-year community college programs in engineering science and in engineering technology. The addition of these transfer students in significant numbers to our regular undergraduate students has provided an added dimension and a uniqueness to the RIT engineering program.

The AS graduate in engineering science with above average scholastic achievement can generally anticipate entering the BS program in mechanical engineering as a regular third-year student. In a few cases it may be necessary to alter one or two courses in the program to accommodate differences in the programs of preparation in the first two years. However, these changes are generally minor.

The AAS graduate in mechanical technology who has demonstrated outstanding achievement should seriously consider transfer to a BS program in mechanical engineering as one alternative for continuing formal education. Because of the basic philosophies underlying the technology programs and the engineering programs are significantly different, the AAS graduate in technology requires a somewhat special program to adapt his or her previous educational experience to the BS program in engineering. Recognizing that no single program of study can effectively integrate all mechanical technology graduates into the engineering curriculum each qualified transfer student is given a specific program of study that best meets his or her career goals, satisfies the basic accrediting requirements for the BS degree, provides a meaningful cooperative work experience, and permits the student to fulfill the degree requirements in a reasonable period of time.

Extended day schedule

The extended day schedule is offered in the late afternoon and early evening hours. The schedule is designed for those who already have an A.S. (Engineering Science) degree, are presently working and who seek an accredited BSME degree. The requirements under this schedule are exactly the same as the day schedule. Further details can be obtained by contacting the Mechanical Engineering office.

Combined five-year BS/MS degree program

In addition to the bachelor of science and master of science degree programs described under the section entitled “College of Engineering,” a combined BS/MS degree program is also available for the mechanical engineering student. A student enrolled in this program is required to successfully complete a minimum of 225 quarter credit hours. After completing this requirement, the student is awarded the BS and MS degrees simultaneously. Admission into the program is based on the student’s cumulative grade point average, which must be at least 3.0, letters of recommendation from the faculty, and a personal interview by a departmental committee. All students in the program are required to maintain a cumulative grade point average of at least 3.0. Further information regarding this program can be obtained from the Department of Mechanical Engineering.

A transfer student who has completed one quarter at RIT and who has achieved a cumulative grade point average of at least 3.0 may apply for admission into the five-year combined BS/MS degree program.

The Mechanical Engineering Department is staffed to offer professional courses in the areas of thermal systems, applied mechanics, manufacturing, environmental science, systems analysis, and materials science. The laboratories of the department are equipped to provide extensive experimentation in these areas and students are encouraged to pursue independent research in addition to that required in their programs.

Course descriptions

For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.
### Option A: Applied Mechanics

**Required Courses:**
- EMEM-632 Advanced Mechanical Systems Design
- EMEM-672 Dynamics of Machinery
- EMEM-694 Stress Analysis

**Electives:**
- EMEM-620 Introduction to Optimum Design
- EMEM-625 Creative Design of Mechanical Devices and Assemblies
- EMEM-664 Engineering Acoustic and Noise Control
- EMEM-670 Thermal Stresses
- EMEM-676 Kinematic Analysis of Mechanisms
- EMEM-679 Dynamics of Physical Systems II
- EMEM-685 Advanced Strength of Materials

**Selected Graduate Level Courses**

### Option B: Thermal Fluid Science

**Required Courses:**
- EMEM-635 Heat Transfer II
- EMEM-652 Fluid Mechanics of Turbomachinery
- EMEM-665 Thermal Fluid Design

**Electives:**
- EMEM-601 Alternate Energy Sources
- EMEM-650 Gas Dynamics
- EMEM-651 Viscous Flow
- EMEM-660 Refrigeration and Air Conditioning
- EMEM-667 Introduction to Air Pollution
- EMEM-669 Introduction to Water Pollution
- EMEM-677 Modern Energy Conversion
- EMEM-680 Advanced Thermodynamics
- EMEM-690 Environment and the Engineer
- EMEM-695 Solid Waste Management
- EMEM-696 Nuclear Power

**BS degree in Mechanical Engineering**

<table>
<thead>
<tr>
<th>Year</th>
<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
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<td>SCHG-206, 209 General Chemistry for Engineers I, II</td>
<td>EMEM-337, 338 Strength of Materials I, II</td>
<td>EMEE-462 Electrical Engineering II</td>
<td>EMEM-516 Fluid Mechanics II</td>
<td>EMEM-543 Dynamics II*</td>
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<td>EMEM-343 Materials Processing</td>
<td>SMAM-318 Intro, to Part. Diff. Eq</td>
<td>EMEM-340-341 Engineering Communications I &amp; II</td>
<td>Mechanical Engineering Option A or B</td>
<td>Mechanical Engineering Option A or B</td>
</tr>
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<tr>
<td></td>
<td>*Physical Education Elective</td>
<td>*Physical Education Elective</td>
<td>*Physical Education Elective</td>
<td>*Physical Education Elective</td>
<td>*Physical Education Elective</td>
</tr>
</tbody>
</table>

*See Pg. 28 for Policy on Physical Education.
*See Pg. 76 for General Studies requirements.
**Successful completion of this course is required to enter Option A.
The College of Fine and Applied Arts offers programs in the arts and crafts through curricula in the School of Art and Design and the School for American Craftsmen. Concentrations, or majors, in the School of Art and Design are given in communication design, environmental design, painting, printmaking and medical illustration. In the School for American Craftsmen concentrations are given in ceramics and ceramic sculpture, glass, metalcrafts and jewelry, weaving and textile design, and woodworking and furniture design.

The studies in the two schools of the college express a common educational ideal: the conviction that technical competence provides the most satisfactory foundation for the expression of creative invention. However, the mastery of techniques is seen as a means, not an end; the end of education in the arts is the exercise of creative imagination.

Resources
The equipment and studios of the School of Art and Design are superior in every respect. A comprehensive art library of source material and an outstanding collection of slides are available for reference; and instructional films and other visual aids are utilized. Exhibitions, held in the Bevier Gallery, feature the work of contemporary painters, designers, and graphic artists, as well as work by faculty and students. Exhibition space in the Bevier Gallery extends the classroom into the public arena. In this gallery the focus is to bring attention to excellence in ideas, concepts, and aesthetic endeavors through the arts, crafts, and design expressions. Openings are planned for students to meet the artists. The Student Honors Show hangs through the summer and the opening of classes in September. Professional designers, painters, photographers, and graphic arts personalities are invited to lecture and give demonstrations. Rochester industry and commerce often sponsor pilot programs which are carried on under faculty supervision.

An added resource is the community of Rochester itself, with its many opportunities for educational, cultural, and social enrichment. Exhibitions, programs in the performing arts, and lectures are available to provide extracurricular learning for the interested student.

The resources of the School for American Craftsmen available for the student are exceptional: excellent equipment and facilities and a unique and challenging program combining learning and doing.

The faculty in the College of Fine and Applied Arts are productive in the fields in which they teach, and the honors and prizes they have won are a reflection of the prestige they enjoy as artists and craftspeople. They have been broadly educated in Europe and the United States, and are well acquainted with contemporary practice in their art or craft. While the teaching staff is composed of professional artists and craftspeople, able to practice their art or craft with distinction, they are, as well, interested and sympathetic teachers and counselors.

The Wallace Memorial Library is particularly strong in the extensive list of contemporary periodicals in the arts and crafts available for study and research.

Accreditation
The programs of study offered in the College of Fine and Applied Arts are fully accredited: courses of study have been approved by the New York State Department of Education, the Middle States Association of Colleges and Secondary Schools, and the National Association of Schools of Art. The college is a charter member institution of the National Association of Schools of Art.

Plan of education
The programs in the College of Fine and Applied Arts are two and four years in length and lead to the associate in applied science and the bachelor of fine arts degrees. Students attend school for three quarters, each eleven weeks in length, during the school year. Advanced study at the graduate level is offered which leads to the master of fine arts and the master of science for teachers degrees. The former may be earned normally in two years, the latter in one. Both graduate degrees may be earned in programs carried during the regular and summer studies, depending on admission and department program. Among the programs offered for the master of science for teachers degree is a concentration in art education designed for those holding the bachelor of fine arts degree (or a bachelor of arts degree with an art major) which leads to the graduate degree and permanent certification to teach in the public schools of the State of New York. This is a September start.

Those interested in graduate study should request a copy of the Graduate Bulletin, which describes the degrees offered, the programs of study, and the procedures governing admission.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

Transfer program
The College of Fine and Applied Arts offers a summer transfer program for art majors. Successful completion of this program qualifies students for second year standing in the following options: communication design, environmental design, painting, printmaking or medical illustration. Designed especially, though not exclusively, for graduates of community colleges, this transfer program is open to students with:

1. good academic standing at another college,
2. one or two years of college, with a heavy emphasis in studio art (minimum of 12 semester or 18 quarter credit hours),
3. presentation of an acceptable art portfolio demonstrating strength in one or more areas.

Summer Session
The College of Fine and Applied Arts offers a program of summer study in both the School of Art and Design and the School for American Craftsmen that is arranged for designers, teachers, and craftspeople. Both basic and advanced workshops are given, as well as graduate courses. Those interested should write the director of the Summer Session for information.
Junior year abroad
The School for American Craftsmen, in cooperation with the Scandinavian Seminars, offers a junior year abroad in the field of the crafts. This permits certain well-qualified students to spend their third year of study in one of the Scandinavian countries, after which they return for a fourth year of study at RIT. Full credit for the year of satisfactory study overseas will be granted toward the BFA degree. Information on the junior year abroad program can be obtained by writing the dean, College of Fine and Applied Arts.

Policy regarding student work
The College of Fine and Applied Arts reserves the right to retain student work for educational use or exhibition for a period of time not to exceed one and one-half quarters beyond the year the object has been made. The college also reserves the right to select an example or examples for its permanent collection. In such cases, where work is selected for the permanent collection the material cost only will be paid by the college. It is an honor to have one’s work in the permanent collection of the College of Fine and Applied Arts.

Attendance regulations
The programs of the college utilize the studios and shop experiences as an essential part of the educational program; therefore it is imperative that the student regularly attend all classes unless specifically excused for special projects or activities by the instructors. Failure to attend classes, and to complete assignments, will be taken into consideration in grading.

Professional approach
Educational programs in the College of Fine and Applied Arts are related to the kinds of art services which the society needs, and based on teaching projects which can be made realistic and meaningful to the student. The problems duplicate, as far as possible, those found in the working situation after graduation. The courses are full-time, instruction is largely on an individual basis, and full opportunity is given for personal development. Exhibitions, lectures, and field trips add breadth and variety to the formal programs of study.

A unique feature of the educational programs offered in the College of Fine and Applied Arts is its emphasis on the professional approach to the understanding and solution of problems. Instructional services provided by a professionally experienced and oriented faculty, plus the well-equipped shops and studios designed with the needs of professional artists or craftsperson in mind, further emphasize the practical character of the program of instruction.

Students are asked to demonstrate a professional attitude and purpose: to apply themselves to the requirements of the program, to cooperate in the fulfillment of its goals, and to assume some responsibility for their educational development through independent work.

Relationship with other RIT schools
Educational facilities of a rare sort in the arts are available to the student in the School of Art and Design: the superior resources of the School of Photographic Arts and Sciences and the School of Printing. A program of instruction which emphasizes production, as well as design of the crafts, gives a unique character to the educational program in the School for American Craftsmen.

The School of Art and Design, in addition to its major concentrations, offers courses in drawing, design, and art electives required in the curriculum. Craft electives are taught by the School for American Craftsmen. Students may elect, with advising and as space is available, elective courses in the college; these complement their programs and interests.

For medical illustration applicants, six additional drawings of natural forms (shells, figures, animals) rendered in a single medium are required.

School for American Craftsmen applicants should submit samples of work in the area of their selected craft major.

2. All portfolio work must be submitted as slides for committee review. Original work is not accepted. Personal interviews are not required; however, if you desire to visit, contact admissions.

3. Slides will be returned by the College of Fine and Applied Arts only when return postage is enclosed.

4. While every precaution will be taken to insure proper care and handling, the Institute assumes no responsibility for loss or damage to slides.

5. Identify slides by name and address.

6. Please send portfolio and all other application materials to:
Rochester Institute of Technology
Office of Admissions
One Lomb Memorial Drive
P.O. Box 9887
Rochester, New York 14623
Telephone: (716) 475-6631

Admission at a Glance: College of Fine and Applied Arts

General Information on RIT’s admission requirements, procedures and services is included in detail on pages 16-17 of this Bulletin.

This college is composed of the School of Art and Design and the School for American Craftsmen, with approximately 700 students. Students are urged to develop the highest technical abilities as well as personal creative expression. The faculty includes many of the nation’s most outstanding and creative artists and craftsmen. Students learn by working in the studios equipped with excellent facilities. Most graduates earn their living utilizing their RIT background.

Communication Design-Prepares students to convey and interchange thoughts, concepts, options and information as creative members of problem solving teams. Career fields include applied arts, designing for industry, corporations, studios, government, social and non-profit organizations. Degrees granted: AAS-2 year; BFA-4 year.

Portfolio Guidelines
For Undergraduate Applicants

The following guidelines are presented for all undergraduate students (including transfers) applying to the College of Fine and Applied Arts. Presentation of the portfolio is one of the requirements used in totally assessing the performance and academic capabilities of the applicant. The selection of the work to be included is an important consideration in determining skills, concepts, craftsmanship and design sensitivity.

1. The portfolio must contain examples of at least 10 pieces of the applicant's best work—35mm slides are required, displayed in an 81/2" x 11" vinyl slide protector page.
Inf Arts—Students concentrate in printmaking, painting or medical illustration and take other art electives. They prepare as professional artists and have exploratory potential for later careers in teaching, performance levels are developed that enable graduate degree studies in studio concentrations. Medical illustrators enter research areas in hospitals and publishing and teaching institutions. Degrees granted: AAS-2 year; BFA-4 year.

Environmental Design—Prepares students to design effectively for social, industrial and environmental conditions. Interior and exterior space, and product design are relevant to the designer. Concern is given to future forecasting and emphasizes the humanistic and larger environments. Degrees granted: AAS-2 year; BFA-4 year.

Ceramics and Ceramic Sculpture—Graduates are self-employed as designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in such areas as fabrication, chemistry and application of glazes, organization of ceramic shop for efficient production, ceramic raw materials, kiln types, fuels and construction. Degrees granted: AAS-2 year; BFA-4 year.

Glass—Graduates are self-employed designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in organization and construction of the glass studio, functions and care of tools, analysis of glass as a material, glass fabrication, glass design, engraving, cold-working techniques, mixing of batch glass, color and fuming techniques. Degrees granted: AAS-2 year: BFA-4 year.

Metalcrafts and Jewelry—Graduates are self-employed designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in use of equipment, metalcrafts, techniques and production in various metals, raising, forging, forming, planishing, enameling, design of jewelry, flatware, holloware. Degrees granted: AAS-2 year; BFA-4 year.

Weaving and Textile Design—Graduates are self-employed designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in such areas as fabric design, analysis of equipment and problems, pattern drafting, analysis of fibers, use of eight to ten harness looms, techniques of weaving, design within price range and use. Degrees granted: AAS-2 year; BFA-4 year.

Woodworking and Furniture Design—Graduates are self-employed designer craftsmen, designers or technicians in industry, teachers, or administrators of craft programs. Professional competencies are developed in such areas as functions and care of woodworking tools, wood as a material, techniques of wood fabrication, design, layout, construction analysis, veneering and finishing, estimating and production. Degrees granted: AAS-2 year; BFA-4 year.

### Freshman Admission Requirements

<table>
<thead>
<tr>
<th>Communication Design</th>
<th>1 year any mathematics; 1 year any science</th>
<th>Art courses: portfolio of original artwork required</th>
<th>Art, design or commercial art. Admission and class standing determined in part by evaluation of required portfolio. Where student lacks sufficient art credit, a summer transfer program is offered at RIT.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fine Arts—painting -printmaking -medical illustration</td>
<td>1 year any mathematics; 1 year any science; 2 years science for medical illustration</td>
<td>Art courses: portfolio of original artwork required, examples of nature for medical illustration</td>
<td>Art or commercial art. Admission and class standing determined in part by evaluation of required portfolio. Where a student lacks sufficient art credit, a summer transfer program is offered at RIT. Space in medical illustration is limited at admission time, and a special portfolio is required.</td>
</tr>
<tr>
<td>Environmental Design</td>
<td>1 year any mathematics; 1 year any science</td>
<td>Art courses; portfolio of original artwork required</td>
<td>Art or commercial art. Admission and class standing determined in part by evaluation of required portfolio. Where student lacks sufficient art credit, a summer transfer program is offered at RIT.</td>
</tr>
<tr>
<td>Ceramics and Ceramic Sculpture</td>
<td>1 year any mathematics; 1 year any science</td>
<td>Art or industrial courses; portfolio of original ceramics work required</td>
<td>Transfer as a junior is uncommon, as comparable programs are not generally available at other college. Space in this program at RIT is limited.</td>
</tr>
<tr>
<td>Glass</td>
<td>1 year any mathematics; 1 year any science</td>
<td>Art or industrial courses; portfolio of original glass work required</td>
<td>Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.</td>
</tr>
<tr>
<td>Metalcrafts and Jewelry</td>
<td>1 year any mathematics; 1 year any science</td>
<td>Art or industrial courses; portfolio of original metals work required</td>
<td>Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.</td>
</tr>
<tr>
<td>Weaving and Textile Design</td>
<td>1 year any mathematics; 1 year any science</td>
<td>Art or industrial courses; portfolio of original textiles work required</td>
<td>Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.</td>
</tr>
<tr>
<td>Woodworking and Furniture Design</td>
<td>1 year any mathematics; 1 year any science</td>
<td>Art or industrial courses; portfolio of original wood work required</td>
<td>Transfer as a junior is uncommon, as comparable programs are not generally available at other colleges. Space in this program at RIT is limited.</td>
</tr>
</tbody>
</table>

About one-third of the courses in each program consist of electives in social science, literature and humanities

*Medical illustration students receive an AAS degree in painting. *
School of Art and Design

The objectives of the programs are to prepare students for a wide variety of positions in which art is related to commerce and industry. Students are prepared to accept major responsibility for the design and execution of projects in communication design, environmental design, painting, printmaking and medical illustration.

The educational objectives of the School of Art and Design are to encourage imagination, creative ability, and a sense of artistic discrimination; to develop the skills essential to professional competence; to relate the various arts and to assist students in finding the means to enjoy them; and to cooperate with the College of General Studies in helping students grow culturally and socially, and to inspire them to make their maximum contributions as creative artists and citizens. Aesthetic and applied concepts are brought together.

Electives—
FADC-411, 412, 413 Communication Design
FADC-511, 512, 513 Communication Design
FADC-520 Professional Design Business Practices
FADD-320 Graphic Visualization
FADD-411, 412, 413 Design Applications
FADD-511, 512, 513 Design Applications
FADD-330 Color
FADD-321, 322, 323 Illustration
FADD-411, 412, 413 Drawing and Painting
FADD-411, 512, 513 Painting
FADD-411, 412, 413 Printmaking
FADD-511, 512, 513 Printmaking
FADC-411, 412, 413 Sculpture
FSCT-251, 252, 253 Ceramics I
FSCT-251, 252, 253 Glass I
FSCT-251, 252, 253 Textiles I
FSCT-251, 252, 253 Woodworking I
PFH-207, 208 Introduction to Filmmaking
PAPH-209 Typography and Photography
PPRT-201, 202, 203 Typographical Composition

Art History; select two courses—
FSCF-300 History of Design
FSCF-310 History of Crafts
FSCF-320 History of Art Criticism
FSCF-330 Philosophy in Art
FSCF-332 Philosophy of Art
FSCF-360 Asian Art
FSCF-390 Selected Topics

NOTE: Beginning September 1982 students in their second year of study will select only two art courses. One will be a core prerequisite and the second course may be a core or an art elective. Core courses will be five credits each and meet for nine clock hours.
Programs

Major concentrations are offered in communication design, environmental design and the fine arts (painting, printmaking, medical illustration). Electives may be pursued, beginning in the second year, in painting, printmaking, design applications, communication design and the crafts. The first year forms the foundation preparation for the major concentration, with courses required in drawing and two- and three-dimensional design. The communication designer is in the service of ideas and humanity. He or she has the abilities and competence needed for effectively planning, imparting and interchanging thoughts, concepts, opinions, and information. He or she is an inventive and creative member of the problem solving teams in the contemporary world of business, industry, agriculture, government, education, and religion. This designer utilizes typography, symbols or photography to create images for a client. The program in environmental design prepares students to design effectively for the social, industrial and environmental condition. The curriculum concerns itself with the preparation for future forecasting, with an emphasis upon the humanistic and larger environment. Interior and exterior space designed to serve people and product design is studied.

The fine arts serve the student who is interested in concentrated study in areas of painting, printmaking, or medical illustration, and electives of additional art choices. Students emerging from this program are prepared as professional artists and have exploratory potentialities for later careers in teaching. An option within fine arts exists with concentration in medical illustration for a few further selected students, thus leading to work in health areas.

Medical Illustration option

(CFAA portfolio and additional six drawings of natural forms required for admission to be presented as slides)

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<tr>
<th>Course Description</th>
<th>Quarter Credit Hours</th>
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<td>First Year</td>
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<tr>
<td>FADF-231, 232, 233 Two-Dimensional Design</td>
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<tr>
<td>FADF-241, 242, 243 Three-Dimensional Design</td>
<td>3 3 3</td>
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<td>FADF-205, 206, 207 Creative Sources</td>
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<tr>
<td>FADF-210, 211,212 Drawing</td>
<td>4 4 4</td>
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<tr>
<td>General Studies-Lower Division</td>
<td>4 4 4</td>
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<tr>
<td>Physical Education Elective</td>
<td>0 0 0</td>
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<tr>
<td>Second Year</td>
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<tr>
<td>FSCF-225, 226, 227 Art and Civilization</td>
<td>3 3 3</td>
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<tr>
<td>General Studies-Lower Division</td>
<td>4 4 4</td>
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<td>Physical Education Elective</td>
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<tr>
<td>FADF-301, 302 Advanced Drawing</td>
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<tr>
<td>FADF-313 Medical Illustration</td>
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<tr>
<td>SBIG-201 General Biology</td>
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<td>SBIG-211,212 Human Biology</td>
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<td>Photography (A&amp;D) for three quarters:</td>
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<td>PPHF-207 Still Photography</td>
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<tr>
<td>PPHF-209 Introduction to Filmmaking</td>
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<td>Third Year</td>
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<td>General Studies - Upper Division</td>
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<td>FADF-421, 422, 423 Medical Illustration Applications</td>
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<td>Gross Anatomy (U of R)</td>
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<tr>
<td>Art Elective</td>
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<td>Fourth Year</td>
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<td>General Studies-Upper Division</td>
<td>5 5 5</td>
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<td>FADF-551, 552, 553 Advanced Medical Illustration</td>
<td>6 6 6</td>
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<tr>
<td>Select One:</td>
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<td>FADC-511, 512, 513 Design Applications</td>
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<td>FADC-511, 512, 513 Communication Design</td>
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<tr>
<td>Art Elective (one per quarter)</td>
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See Pg. 78 for General Studies requirements.
**Art Electives listed on previous page.
***Core courses that are prerequisite to the third year.
**3 quarters of Still Photography may be substituted with Anatomy (U of R) t.
A tuition surcharge will be applied in this quarter.
See Pg. 28 for Policy on Physical Education.
^Upon successful completion of the second year, the associate in applied science (fine arts—painting) degree is awarded.

Course descriptions

For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

The credit requirements for the Fine Arts—Painting, Printmaking; Communication Design; and Environmental Design programs are as follows:

<table>
<thead>
<tr>
<th>Course</th>
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<tbody>
<tr>
<td>Required Art Major</td>
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<tr>
<td>Required Professional Art Electives in the Visual, Graphic or Photo Arts</td>
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<tr>
<td>Open Electives</td>
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<tr>
<td>General Studies</td>
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<tr>
<td>Art History and Creative Sources</td>
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<tr>
<td>Total</td>
<td>198</td>
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</tbody>
</table>
School For American Craftsmen

The objectives of the programs of study of the School for American Craftsmen are to provide for creative growth, the development of professional competence, and intellectual and cultural enrichment. Students who complete the two-year program are prepared for work in the design studios and workshops of established craftspeople, or as technicians in industry. Those who complete the four-year course of study are prepared for careers as self-employed designers—craftspeople, as designers or technicians in industry, or as teachers or administrators of crafts programs.

In order to achieve the desired occupational goals, the educational objectives seek to stimulate creative imagination and technical invention, develop knowledge of process and command of skills, foster appreciation, not only of the crafts, but the related arts. The program strives to inspire the student to seek continual improvement through analysis and self-evaluation, and to cooperate with the College of General Studies in assisting students to develop personally and socially.

Student responsibilities
Students are responsible for the care and cleanliness of their shops and for the care and maintenance of the tools and machines with which they work. No student may use any machine until instruction in its proper use has been given, and responsibility for observing safety precautions is assumed by each student upon entering the school. Some unique supplies are provided for convenience and choice, but financial obligations must be met for successful completion of courses. Fees for kiln firings, supplies, and furnace use are student responsibilities.

Programs of study
The School for American Craftsmen offers a full-time program of study with opportunity for concentration in one of five craft fields: ceramics and ceramic sculpture, metalcrafts and jewelry, weaving and textile design, woodworking and furniture design, and glass. After satisfactory completion of two years of study the associate in applied science degree is granted. Those with the aptitude and interest for further study may continue for two additional years. After successful completion of the four-year program the bachelor of fine arts is awarded.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

Electives
FADC-411, 412, 413 Communication Design
FADC-511, 512, 513 Communication Design
FADC-520 Professional Design Business Practices (Spg Qtr)
FADD-320 Graphic Visualization
FADD-411, 412, 413 Design Applications
FADD-511, 512, 513 Design Applications

FADF-201, 202, 203 Design
FADF-205, 206, 207 Creative Sources
FADF-261, 262, 263 Drawing
General Studies Electives-Lower Division
Materials and Processes (one)
FSCC-200 Ceramics
FSCG-200 Glass
FSCT-200 Textiles
FSCT-200 Textiles
FSCW-200 Woodworking
Physical Education Elective

FSCF-225, 226, 227 Art and Civilization
General Studies Electives-Lower Division
Materials and Processes (one)
FSCC-300 Ceramics
FSCG-300 Glass
FSCM-300 Metalcrafts
FSCT-300 Textiles
FSCW-300 Woodworking
Electives (one per quarter)
Physical Education Elective

FSCF-380 Contemporary Art
(elective, one required; offered every quarter)
General Studies Electives-Lower Division
Materials and Processes (one)
FSCC-400 Ceramics
FSCG-400 Glass
FSCM-400 Metalcrafts
FSCT-400 Textiles
FSCW-400 Woodworking
Electives (one per quarter)

FSCF-350 Asian Art
FSCF-360 18th and 19th Century Art
FSCF-370 20th Century Art
FSCF-411, 412, 413 Printmaking, Techniques and Thesis (one)
FSCF-400 History of Art Criticism
FSCF-550 Art History Electives (select two)
FSCC-500 Ceramics
FSCG-500 Glass
FSCM-500 Metalcrafts
FSCT-500 Textiles
FSCW-500 Woodworking
Electives (one per quarter)

FADP-321, 322, 323 Illustration
FADP-511, 512, 513 Drawing and Painting
FADR-411, 412, 413 Printmaking
FADP-511, 512, 513 Printmaking
FADS-411, 412, 413 Sculpture
FSCC-251, 252, 253 Ceramics I
FSCG-251, 252, 253 Glass I
FSCM-251, 252, 253 Metalcrafts I
FSCC-251, 252, 253 Ceramics I
FSCG-251, 252, 253 Glass I
FSCM-251, 252, 253 Metalcrafts I
FSCW-251, 252, 253 Woodworking I
PPHG-207, 208, 209 Still Photography
Art History: select two courses—
SCF-300 History of Design
SCF-310 History of Crafts
SCF-320 History of Art Criticism
SCF-330 Philosophy in Art
SCF-340 Man and His Symbols
SCF-350 Asian Art
SCF-360 18th and 19th Century Art
SCF-370 20th Century Art
SCF-390 Selected Topics
College of General Studies

Liberal Education in the Humanities and Social Sciences

Mary C. Sullivan, R.S.M., Dean

The College of General Studies provides each student with a program of liberal education which develops his or her potential as an intellectually aware and responsible human being. It is, therefore, the foundation for the student's entire educational experience. As part of that broader experience which may be called the student's general education, this program of liberal education is distinguishable from the student's professional education in that its purpose is to nurture not specifically professional knowledge or skill, but each student's capacities as a thinking, creating, and responsible person. Thereby enriched, RIT students will be all the better prepared for their professions and their lives, for they will be able to understand and interpret the problems, as well as the personal and social illuminations, found in the study of the many and varied fields of human endeavor.

The program of the College of General Studies, in which all RIT students participate, aims to accomplish the following goals with and on behalf of each RIT student:

- To develop the student's ability to think rationally, to read critically, to speak and to write cogently and clearly;
- To develop the student's ability to analyze issues, to question assumptions, to investigate problems, and to seek solutions;
- To develop the student's understanding of aesthetic values and their relevance to life;
- To expand the student's intellectual horizons by acquaintance with the western heritage;
- To develop the student's awareness of how the past invariably affects the present and the future;

- To promote the student's understanding of our society and how it interrelates with and is indebted to other cultures, thereby liberating the student from a narrow provincialism;
- To acquaint the student with the basic principles and dynamics of individual and group behavior in the many areas of human interaction;
- To develop the student's understanding of the nature of ethical values;
- To develop the student's awareness of the social, ecological, and ethical consequences of technology, and to foster a sense of responsibility to self and society;
- To develop the student's ability to bring together varied insights and methods of analysis for the purpose of better understanding complex human and social problems.

These goals are fostered throughout a student's education at RIT by the General Studies curriculum which offers each student the opportunity to acquire these abilities and understandings through courses in the humanities and social sciences. In addition to regular courses, a student may engage in independent study. These are planned by both student and instructor and provide an opportunity for the student to develop initiative and imagination in a flexible program of study.

Included in the college are degree programs in criminal justice and social work, which are described later in this bulletin. The close involvement of these programs with the humanistic studies of the other General Studies divisions is an example of what the college is endeavoring to do throughout its curriculum, that is, to demonstrate the interrelation of all fields of learning.

The New General Studies Curriculum

The new curriculum of study in the humanities and social sciences which all RIT students will pursue in the College of General Studies may be understood by examining the following chart. Students in the various RIT associate and baccalaureate degree programs will complete this entire General Studies curriculum or a modification of it, as applicable to their particular degree programs. Faculty academic advisors in the College of General Studies and in the other colleges of the Institute will assist students in interpreting the General Studies curriculum as it applies to their particular degree program. The new General Studies curriculum as outlined here was approved in March 1981 and will be implemented for all RIT students beginning in September 1982. The curriculum consists of fourteen courses (54 quarter credits) arranged in five groups:

1. English composition
2. The core curriculum of six foundation courses in the humanities and social sciences;
3. A disciplinary or interdisciplinary concentration of three advanced courses;
4. Three advanced electives;
5. The General Studies Senior Seminar and Project.

Visually, the curriculum may be represented as follows:

Courses

The courses of the curriculum are taught in the following disciplinary areas as well as in inter-disciplinary fields of study.
The General Studies Curriculum

English
Composition
4 credits

The Core Curriculum
6 foundation courses; 4 credits each

<table>
<thead>
<tr>
<th>Psychology</th>
<th>Economics</th>
<th>Political Science</th>
<th>Sociology/ Anthropology</th>
<th>Philosophy or Science, Technology and Society</th>
<th>History</th>
<th>Literature</th>
<th>Fine Arts</th>
</tr>
</thead>
</table>

Social Science Requirements _
(Each student will choose 2 of the 4 courses)

3-course concentration with prerequisites, 4 credits each

Humanities Requirements _
(4 courses)

The concentration may be in a disciplinary or interdisciplinary area.

3 electives, 4 credits each

Senior Seminar and Project
2 credits

Language and Literature Area

Disciplines:
Language (prefix GLLC)
Literature (prefix GLLL)

Social Science Area:
Disciplines:
Economics (prefix GSSE)
Political Science (prefix GSSM)
Psychology (prefix GSSP)
Sociology/Anthropology (prefix GSSS or GSSA)

Science and Humanities Area

Disciplines:
Fine Arts (prefix GSHF)
History (prefix GSHH)
Philosophy (prefix GSHP)
Science, Technology and Society (prefix GSHN)
Concentrations
A concentration is a group of closely related advanced courses from which the students choose three. The students’ liberal/general education is enhanced by such concentrations in the following ways:

1. Students achieve greater depth in learning because they have, where necessary, taken the prerequisites for these courses and because they benefit from the accumulated depth of the three-course concentrations themselves.
2. They achieve a kind of “minor” in an area of liberal education.
3. They are able to see cohesion among at least three of their advanced courses.
4. They are able to build on and to link new learning to their core courses.
5. They can develop more judgment and understanding in an area of the RIT or college goals.

Concentrations are pursued in the third, fourth or fifth year of the baccalaureate programs and can take either of the following forms:

1. Disciplinary Concentrations:
   a. three related courses in a single discipline leading to an in-depth knowledge of the methods, problems and achievements of that mode of inquiry
   b. three interdisciplinary courses on a single broad theme or topic;
   c. a mixture of a. and b.

A concentration is composed of three courses chosen from the four to six courses that make up the concentration. The limited number of courses qualifying for the concentration increases the frequency with which they will be offered and the flexibility students will have in scheduling and registration. Some courses may qualify for several different concentrations. This will enable students to have flexibility in changing concentrations.

The General Studies concentrations available to RIT baccalaureate students will be the following:

Disciplinary Concentrations:
Prerequisites and the specific courses qualifying for each of the following disciplinary concentrations will be determined by the General Studies academic committees responsible for these areas of study.

In each case, the student will choose three of the four to six courses that qualify for the concentration.

Communications
Economics
Fine Arts
History
Literature
Philosophy
Political Science
Psychology
Sociology/Anthropology

Interdisciplinary Concentrations:
A number of interdisciplinary concentrations will be clustered around the goals of the Institute and the college. These concentrations involve in-depth study of a topic or an area believed to represent an important realm of interdisciplinary learning for educated persons. Each of these interdisciplinary concentrations will consist of four to six courses from which a student will choose three. The specific courses composing each concentration will be formulated by faculty working in close collaboration with one another so that the courses of the concentration are closely related. For example, there may be interdisciplinary concentrations in the following general areas related to the college goals as well as in other areas now in the process of development:

- Aesthetic Values
- Western Heritage
- Influences on the Present and Future
- Inter-Relationship with Other Cultures
- Human Dynamics
- Ethical Values
- Science, Technology, and Society

Particular interdisciplinary concentrations may also be developed in Women’s Studies, Contemporary International Issues, Arts and the Environment, Religious Studies, The Ancient World, Future Studies, and Non-Western Civilizations.

Electives
The opportunity to choose three elective courses provides students with an element of choice in planning their General Studies program. Electives may be chosen from among core courses not previously taken, or concentration courses for which the student has the proper prerequisites, as well as from among those courses designated “elective.”

General Studies Senior Seminar and Project
The purposes of the Senior Seminar and Project are the following:

- to give senior students the opportunity to prepare theses or projects that call for analysis and synthesis and for the application of their General Studies experience to major issues that may affect their professional careers;
- to provide seminars for all senior students on a general theme related to their required thesis or project;
- to provide an advanced experience of problem-solving and value-clarification.

The Senior Seminar will be designed and implemented on an annual basis by a Seminar Committee of faculty selected a year in advance by the dean and the staff chairpersons. The main focus of the Senior Seminar will be the formulation and direction of the senior theses or projects. In support of this the Seminar Committee may plan in advance a general theme for each academic year, and may choose related common texts to be read by the students in the Seminar; major lectures on topics related to the theme may also be scheduled. The course will last one quarter and can be taken anytime in the senior year.

Selected faculty of the various colleges of the Institute may be invited to participate as consultants in the seminars.
Implementation of the New General Studies Curriculum

Fall 1982: Implementation of the entire curriculum except the Senior Seminar and Project.

Fall 1983: Implementation of the Senior Seminar and Project.

This implementation would apply to entering students (freshmen and transfers) as follows:

Students entering in:

Fall 1978: (Graduating Class of 1982*)

The current ("old") General Studies Curriculum** (courses as currently prescribed) is required. If these students have not graduated by September 1982 they would still be expected to complete only the current curriculum and would have waiver of one credit for each remaining upper division elective they need to take. They will not take the Senior Seminar and Project.

Fall 1979: (Graduating Class of 1983*)

Same requirements as Fall 1978. These students will receive a waiver of one credit on each upper division General Studies course they take in 1982-1983. They will not take the Senior Seminar and Project.

Fall 1980: (Graduating Class of 1984*)

These students will be required to take the current ("old") General Studies lower division** courses and the new advanced General Studies curriculum as it applies to their degree program:

- 3 cluster ("concentration") courses
- 3 electives
- Senior Seminar and Project

Fall 1981: (Graduating Class of 1985*)

Same requirements as Fall 1980. These students are of course free and encouraged to choose General Studies lower division courses in the light of the new curriculum as applicable to their degree programs and as needed for the cluster of advanced courses they may later wish to pursue.

Fall 1982: (Graduating Class of 1986*)

The entire new General Studies curriculum will apply to these students, as this curriculum is applicable to their degree programs.

Registration

The courses of the College of General Studies are available to students registered in one of the colleges of the Institute. (Degree programs in social work and criminal justice are available to students through the College of General Studies, and are described on later pages of this section.)

It should be noted that beginning in Fall 1982 all courses except the Senior Seminar carry four quarter hours of credit. Further, all courses meet at least three scheduled class hours each week. The discrepancy between credit hours and class hours is designed to provide for carefully planned and extensive out-of-class assignments and projects.

The purpose of this plan is to provide the student with opportunities for instructor-guided extended responsibilities beyond those normally found in a regular classroom situation.

The College of General Studies will enroll students who are not currently degree candidates, individual programs will be developed for each student.

Diploma courses will not normally be used toward the completion of general studies requirements.

Faculty

The faculty of the College of General Studies is selected from candidates with advanced study in the social sciences and humanities. These men and women are dedicated teachers who have chosen as their professional goals the provision of rich and meaningful learning experiences for the student and continuing growth in their scholarly fields.

Summer Session

Under the auspices of the Institute Summer Session, the College of General Studies, upon sufficient demand, offers a number of courses in Language and Literature, Science and Humanities, and Social Science. Information concerning courses to be offered can be obtained by contacting the director, Summer Session, or by requesting the Summer Session Bulletin from the College of Continuing Education or RIT Office of Admissions One Lomb Memorial Drive P.O. Box 9887 Rochester, NY 14623

* or the following year for students in five-year programs.

** as described in the 1980-81 Bulletin
College of General Studies:
Human Service Degree Programs

By C. Sullivan, R.S.M., Dean

The college offers two programs leading to the BS degree: criminal justice and social work.

Criminal Justice—The program is designed to prepare students for responsible positions in criminal justice and the security sector, as well as to provide continuing education for those professionals already employed in a variety of criminal justice agencies. The generic nature of the curriculum provides individual career tailoring and offers unique opportunities for practical on-the-job learning experiences. Degree granted: BS-4 year.

Social Work—This program prepares students to assist individuals, families, groups and communities in the identification and solution of problems, with an awareness of social issues and services. A full-time, 20-week field instruction placement in a social work agency provides the student with an opportunity to relate academic learning to professional practice through relevant individual, group, family, and community experiences. Degree granted: BS-4 year.

Freshman Admission Requirements

<table>
<thead>
<tr>
<th>Social Work</th>
<th>Criminal Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social sciences; humanities</td>
<td>Social sciences; humanities, e.g. History, Government, Economics</td>
</tr>
<tr>
<td>Elem. Algebra; Inter. Algebra; 1 year any science</td>
<td>Elem. Algebra; Inter. Algebra; 1 year any science</td>
</tr>
</tbody>
</table>

Transfer Admission with junior standing

<table>
<thead>
<tr>
<th>Social Work</th>
<th>Criminal Justice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social sciences; humanities</td>
<td>Social sciences; humanities, e.g. History, Government, Economics</td>
</tr>
<tr>
<td>Junior standing for the first two years is offered for an associate's degree in an appropriate major. Holders of liberal arts or other two-year degrees will be granted credit for the first two years except for required professional courses. All transfer students must demonstrate competency in professional courses required in the first and second years or must take these courses.</td>
<td>Junior standing for the first two years is offered for an associate's degree in an appropriate major. Holders of liberal arts or other two-year degrees will be granted credit for the first two years except for required professional courses. All transfer students must demonstrate competency in professional courses required in the first and second years or must take these courses.</td>
</tr>
</tbody>
</table>

Tour years of English are required in all programs, except where state requirements differ.
Criminal Justice Program and Career Opportunities

Elizabeth B. Croft, Director

The bachelor of science degree program in criminal justice is designed to prepare students for entrance into the many careers within the criminal justice system and the public and private security sectors, as well as to provide continuing education for men and women already pursuing professional criminal justice or security careers.

The curriculum is structured in such a way as to provide the student with the basic knowledge and skills of all facets of the criminal justice system. Areas of study include law, law enforcement, courts, corrections, as well as the examination of the issues of crime prevention and resocialization. Through the required professional courses, the opportunity for a thorough understanding of the broad field of criminal justice will be provided for the student; through the professional electives, the student will have the opportunity to begin specialization in a particular area within the criminal justice field or the security area, as well as to acquire advanced auxiliary skills now needed in these professional areas. It should be emphasized that in both the professional courses and the general education courses, students will be stimulated to develop their own capacities for sound judgment and their own decision-making skills. Through careful academic guidance, they will be encouraged to design a well-balanced program of study leading to professional competence as well as breadth in personal development. A particularly important aspect of the program is the supervised field education placement.

These specific goals are undergirded by a program that pursues the following more general goals:

1. To broaden the social, cultural and political perspectives of students.
2. To develop an interdisciplinary and cross-cultural perspective of the area of criminal justice, with special emphasis upon the humanistic perspective.
3. To prepare personnel in terms of broad educational experience in a work setting as well as to develop specific skills through this field work experience.
4. To inquire into the specific areas of juvenile delinquency, white collar crime, political crime, discretionary arrest, loss prevention security, corporate crime, the problem of a dual system of justice, crime without victims, new and innovative programs of rehabilitation and crime control, and majority-minority relations.

Career opportunities in the field of criminal justice are many. The Occupational Outlook Handbook prepared by the Bureau of Labor Statistics indicates a projected need for substantial numbers of new employees in the criminal justice system. Criminal justice is a rapidly changing and expanding field. Students who graduate from the program will find career opportunities in police work, courts, prisons, probation departments, parole, halfway houses, community treatment centers, customs, narcotics control, drug treatment, data processing, youth service programs, counseling, crime control planning and research.

“We have a forward-looking approach,” says Bette Croft, director of the program. “That is one of the reasons that, commencing in 1981, we’ve introduced an expanded concentration in security. The Task Force Report on Private Security of the National Advisory Commission on Criminal Justice Standards and Goals projects nearly two million private security positions in the United States and a growth rate of over 100,000 new positions a year.”

The curriculum is designed to prepare students for entrance into both the criminal justice system and the security sector, and to provide continuing education for those already pursuing careers in these areas. If a student hopes to enter graduate school in the future, this program also serves as an excellent foundation for further study in criminal justice, security, law, public administration, human services, criminology and sociology.

Through required professional courses, students gain a thorough understanding of the criminal justice field. Elective courses will enable them to specialize in particular areas within the field. Concentrations in the form of courses in business, social work, photography and computer science, also, are available as part of the program. Students receive careful academic guidance in designing a well-balanced program of study leading to professional competence and breadth in personal development.

During the senior year, students spend 10 weeks working in one of a variety of agencies in criminal justice or security. This internship gives them the chance to witness and participate in the activities of an established agency. This field experience allows students to experience directly the realities of working within the system. Some of the traditional agencies in which students are placed during the internship include state and local law enforcement, probation and parole offices, state and local correctional institutions, halfway houses, adult and juvenile counseling programs, public defender’s or district attorney’s offices, and retail and corporate security agencies.

The criminal justice faculty are highly qualified individuals with advanced degrees and extensive practical experience in criminal justice or related areas. Among the full-time faculty are experts in law enforcement, institutional corrections, probation and parole, criminal law, civil law, security, and research. Thus, the criminal justice faculty are a source of guidance as well as instruction. They assist students in their specific interest in criminal justice and provide advice on career planning.

The criminal justice program allows students the chance to participate in independent study for academic credit, if they are doing well in their regular studies. Such independent study helps build confidence and develop initiative. Projects may vary from one quarter credit hour to 10 quarter credit hours. This credit may be used to replace criminal justice upper division professional electives.

Student body
The criminal justice student body is composed of men and women from the several regions of New York State and from a number of areas in the northeast, midwest, and central Atlantic states. Approximately 180 students are matriculated in the department, and 39 percent of the students are women.

Principal field of study
For students matriculated in the Criminal Justice Program, the principal field of study includes all courses offered by the Criminal Justice Department and/or equivalent CCE courses. Matriculated students not maintaining a 2.0 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.
Professional elective options
The following list of professional electives is illustrative of those offered periodically within the Criminal Justice Department. These courses are grouped under only one general heading, even though many are appropriate for students with tangential career objectives.

A student selects professional elective courses with the advice of his/her faculty advisor.

One of the strengths of the criminal justice program is that students may elect to take up to fifty percent of their professional electives from other designated colleges in the Institute, thus enabling an additional concentration in a related professional area applicable to their career goal.

Professional Elective Options: Criminal Justice
Corrections
Constitutional Law
Legal Rights of Convicted Offenders
Correctional Administration
Social Control of Deviant Behavior
Counseling in the Criminal Justice System
Alternatives to Incarceration
Sentencing Process
Criminology
Organized* Crime
Social Control of Deviant Behavior
White Collar Crime
Victimless Crime
Women and Crime

Law
Introduction to Para Legals
Constitutional Law
Legal Rights of Convicted Offenders
Social Control of Deviant Behavior
Evidence
Court Administration
Comparative Criminal Law
Sentencing Process
Victimless Crime
Advanced Criminal Law
Legal Aspects of Security

Law Enforcement
Administrative Concepts of Law Enforcement
Organized Crime
Investigative Techniques
Constitutional Law
Civil Disobedience and Criminal Justice
White Collar Crime
Evidence
Police Community Relations
Victimless Crime

Security
Organized Crime
Investigative Techniques
White Collar Crime
Institutional Security
Physical Security and Safety
Retail Security
Emergency and Disaster Planning
Security Management
Legal Aspects of Security
Seminar in Security

College of Business
College of Graphic Arts and Photography
College of General Studies-
Department of Social Work
School of Applied Science and Technology-School of Computer Science and Technology

Professional Elective Options: Related Professional Areas
With the approval of the faculty advisor, a student may select an additional professional elective concentration from career-relevant courses offered in the following colleges:
Sodai Work Program Offered in Response to Community Needs

Arnold J. Berman, Director

Since its inception in 1829, Rochester Institute of Technology has had a long tradition of community service. Its program in social work is a response to the needs of communities and is viewed as a continuing step in RIT’s community commitment.

It is conceived as a broad generic major to prepare baccalaureate-level social workers and is designed to respond to the trend in the profession toward a wider variety of social work practice roles. This trend has received wide support among social work employers, and the / National Association of Social Workers and the Council on Social Work Education have officially supported the development of baccalaureate professional curricula. The bachelor of science degree program is the initial entry into the field of social work, and may also prepare students who wish to continue their professional education on the graduate level.

Accreditation

The bachelor of science degree program in social work is accredited by the Council on Social Work Education.

Career Opportunities

Because the curriculum leading to the BS in social work contains a variety of social science offerings, the student will be able to choose a broad spectrum of career goals in addition to the possibility of a variety of graduate programs related to the helping services.

Graduates of the RIT social work program are employed in agencies providing services to the following types of clientele: alcohol and drug abusers, delinquents, single parents, those on probation and parole, those in family court situations, people with emotional problems, mentally retarded, hearing impaired and other disabled persons, children and their families, and aging people.

Employment is also available in agencies that provide such special services as community planning and intervention, metropolitan planning, rural social services, hospital work, corrections work, school social work, day care center work, legal services, and human service education.

Principal field of study

For students matriculated in the Social Work Program, the principal field of study is defined to be: (1) required social work courses (including field placement); (2) professional electives; and (3) required service courses offered through the College of General Studies, College of Business, College of Science, and College of Applied Science and Technology. Matriculated students not maintaining a 2.00 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.

Curriculum

The curriculum leading to the baccalaureate degree in social work rests on the following general areas of content:

1. Foundation Courses

Taken within the first two years, foundation courses define the role of the professional social worker, explore the history of the social welfare system, and examine the structure and the functions of the system of social services.

2. Skills Courses

These include a series of three Methods courses offered before and concurrently with field instruction designed to provide students with basic generic Intervenive techniques and strategies fundamental to professional practice with individuals, groups, families and the community. Emphasis is placed on the development of Intervenive skills and on the differential use of common principles in a diversity of situations requiring social work intervention.

3. Field observation, volunteer opportunities, and field instruction

A continuous range of experiential learning opportunities is provided throughout the curriculum. Observation and volunteer work in a social, governmental, or educational institution is encouraged in the first and second years.

A unique feature of RIT’s social work program is its 600 hours of full-time agency field instruction, which usually occurs in the third year. Students must meet specific knowledge, attitudinal and skill criteria as set forth in the Field Placement Policy before advancing to a field placement (see the Social Work Department Student Handbook for a full statement of this policy).

Further “hands-on” opportunities for field experience may be available in the fourth year in connection with the Senior Research course. The Independent Study option also may be used to extend experience in the field. All work in this area will be under the supervision of RIT faculty.

4. Minority Content

Course content on minority populations is an essential and required part of the social work curriculum. The content is provided in a sequence of three courses that address the history of social discrimination, black culture, and hispanic culture. In addition, Spanish language and manual language courses are available.

5. Social policy and the profession of social work

This area includes material on social welfare, sources of social conflict, the involvement of government in social welfare, voluntary social welfare services, decision making, economic factors affecting poverty, employment levels, guaranteed annual income, personal social services, and the democratic-humanitarian values of our society as these may emerge in social welfare practice.

In addition, content on the characteristics and attributes of social work as a profession will be closely examined. The varying roles of the social worker including his or her relationship to clients and agencies will be studied, as well as the various philosophical and ethical bases of action, the motivation required for effective delivery of service, career opportunities, organizational settings, group identification and such issues as bureaucracy versus individualism.

6. Human behavior and the social environment

A broad spectrum of courses is offered in the social sciences and humanities.

Liberal education opportunities assist students in their intellectual, aesthetic, and social development, stimulate their curiosity, and sharpen their ability to engage in independent inquiry. Course work in human behavior and the social environment is designed to help students become aware of alternate
The Research sequence in the science, and "hands-on" experience written and oral communication and therefore are different for each student's professional training in social work is supported by a solid foundation of knowledge and theory. In addition, these academic opportunities will be used to help students develop those techniques indispensable to good written and oral communication and pursue a vigorous intellectual independence.

7. Management-related courses
Within the profession of social work, issues of agency and service management have consistently and increasingly been emphasized. Management knowledge and skill have become essential ingredients of professional competence. This special emphasis in the curriculum assures social work students of proficiencies directly pertinent to the needs of modern agencies and, consequently, to employment possibilities.

8. Research
The Research sequence in the curriculum provides students with an understanding of basic research methods, an optional course in statistics (recommended for students planning on graduate study), an introduction to computer science, and "hands-on" experience in designing and carrying out a research project.

8. Professional electives and Concentrations
Professional electives are courses of choice based on the student's announced career goals, and therefore are different for each student. The Social Work Department and other departments at RIT offer a wide variety of course opportunities for the student to explore and develop social work skills in such specific social issue areas as:
- poverty;
- effects of technology on human social life;
- management of human services to address specific human needs;
- working with the disabled, especially hearing-impaired people;
- application of the computer to meeting human needs;
- the unique, continuing and disturbing issues of Black and Hispanic minority people in our society;
- the puzzling and value-charged issues of alcohol and drug abuse;
- the increasing interrelationship of human social needs and the legal system;
- the growing focus on the roles of the family and how it effects changes in childhood, and therefore, adulthood;
- the delivery of social services to rural areas;
- self-awareness and personal growth;
- sexism and sexual identity issues in our society;
- working with aging people;
- advocacy with clients in dealing with social institutions;
- and mental health services

Basically, a Concentration is a sequence of three or four professional elective courses, offered within the Social Work Department or in other departments, focused on a single unified field of service. Concentrations include:
- Hearing Impairment
- Alcoholism and Substance Abuse
- Families and Children
- The Legal System (Criminal Justice)
- Management
- Computer Science
- Advanced Field Placement

Transfer Credit
Transfer credit is given for related academic work taken prior to entering the social work program. A student entering with an appropriate two-year degree can complete the RIT program in two academic years.

Course Descriptions
For a description of course content and sequencing, please request the Courses catalog from the Admissions Office.
College of Graphic Arts and Photograph

Mark F. Guldin, Acting Dean

The College of Graphic Arts and Photography encompasses the School of Photographic Arts and Sciences, the School of Printing, and the Technical and Education Center of the Graphic Arts.

The School of Photographic Arts and Sciences was established in 1930 with a two-year course for the training of technicians for the photographic industry. It now offers undergraduate programs leading to a BS degree in photographic science and instrumentation, a BS degree in professional photography, a BS degree in filmmaking and television, and a BFA degree in photographic illustration. A program in photographic management and marketing—given jointly by the School of Photographic Arts and Sciences and the College of Business—leads to the BS degree. A program in biomedical photographic communications leading to AAS and BS degrees is also offered. Graduate programs lead to an MS degree in photographic science and instrumentation, and to an MFA degree in photography. More than 950 students are enrolled from nearly every state and many foreign countries. The curriculum in photographic science and instrumentation is the only accredited program of its kind leading to the BS and MS degrees.

In 1937 the Institute absorbed the Empire State School of Printing with the object of establishing advanced technological education in printing and the graphic arts. The School of Printing offers programs leading to the bachelor of science degree in printing with 14 options for specialization. The BS program in newspaper production management provides graduates who can synthesize the new technologies into the newspaper technical departments and provide long-range management planning to this important segment of the printing industry. The program in Printing Systems Management combines printing and industrial engineering, and prepares graduates for optimizing operating conditions in the complex printing establishment. A new BS degree in Printing and Applied Computer Science further expands the scope of the school’s offerings. It also offers programs leading to the MS degree in printing technology and printing education.

Over 700 degree candidates are enrolled in the School of Printing. Students come from almost every state, and students from many foreign countries have registered in printing programs.

The Technical and Education Center, with its own full-time staff, renders service to various fields of the graphic arts. It also conducts short, highly specialized courses for men and women engaged professionally in the graphic arts.

Resources

The college is housed in a building that has been specifically designed for instruction in photography and printing. Its many specialized laboratories and wide range of equipment make it the most complete of any degree-granting institution in these fields.

The faculty has been carefully selected on the basis of their teaching effectiveness and ability to relate well with students. They are also individuals who are educationally qualified and have had extensive professional experience and training in the graphic arts industries.

The establishment of three distinguished professorships highlights this qualification of the college’s teaching staff. Establishment of The Paul and Louise Miller Distinguished Professorship in Newspaper Management in the School of Printing emphasizes the importance placed on education for persons entering the rapidly changing newspaper industry. The Melbert B. Cary, Jr., Professorship emphasizes the school’s continued involvement in typography and design. The James E. McGhee Professorship highlights the School of Photographic Arts and Sciences’ interest in photographic processing and finishing, as well as in the photographic marketing and management areas.

Rochester is the world center of research and development in photography and the graphic arts, as well as a city well-known for quality printing. It is an ideal environment for students in either photography or the graphic arts because they have access to a faculty which is close to progress in these fields, and through guest lectures, field visits, and meetings of scientific and professional organizations, they can personally meet many of these leaders in research and development.

The RIT library is rich in both photography and the graphic arts, and the cooperation of the George Eastman House of Photography and the library of the Kodak Research Laboratories makes available one of the largest collections of reference materials for these fields to be found anywhere.

Two special libraries are housed in the college directly, the Technical and Education Center Library and the Cary Library. The latter contains the Melbert B. Cary, Jr., Graphic Arts Collection, with more than 4,000 volumes, plus rare books illustrating the past and present of fine printing.

Plan of education

The college seeks to prepare men and women to be professionally competent in their chosen area and to have an appreciation and understanding of our cultural heritage and democratic institutions. Although the primary concern of the college itself is with science and technology, and the occupational aspects of life, it requires of every student courses in communication, the humanities, and the social and natural sciences. These form an integrated program of liberal education in the College of General Studies and require from one-quarter to one-third of the student’s time.

The college operates on the quarter plan, each quarter being 11 weeks in length. Many classes are available during the summer.

Most programs of the college include a senior thesis as a requirement for the bachelor’s degree. This involves independent study and research on a subject chosen by the students and approved by their advisors. The thesis provides the student the opportunity to make a detailed study of a subject of particular interest. It often requires extensive reading, thus making the student more conversant with the literature and, where laboratory research is involved, the student acquires experience in the design of experiments, the conduct of research, and the writing of technical reports. A number of these reports have been presented at
The School of Photographic Arts and Sciences offers several special courses each summer to meet professional or avocational needs not met by the four-year programs. Information on summer programs in either school can be obtained from the director of the Summer Session.

Technical and Education Center

The Technical and Education Center of the Graphic Arts serves the printing and graphic communications industry through product testing, continuing education, and the dissemination of information. It enjoys an international reputation as a source of the most current information and techniques in the graphic arts. The center acts as an interface between RIT’s academic programs and industry.

The Technical and Education Center staff has been recruited from industry and research organizations. Staff members work to serve industry needs through four main departments: physical testing, information services, the seminar center, and the order department.

The Physical Testing Laboratory conducts industry-supported programs for testing paper, plates, blankets, inks and press chemicals, etc. It has the only full-size, four-unit perfecting web offset press for testing in the world. The staff works with paper and ink companies, press manufacturers and printers as consultants and testing coordinators.

The Information Services Library houses an extensive international collection of graphic arts periodicals, technical reports, and conference proceedings. These are used to compile a monthly publication, *Graphic Arts Literature Abstracts*, which offers subject-categorized, fully indexed informative abstracts of the literature. GALA represents an expanded effort into current awareness and retrospective retrieval capability. The library is open to RIT graduate printing students and Technical and Education Center staff for research.

The Technical and Education Center conducts job-related seminars and educational programs in various segments of the graphic arts industry.

For more information or to register for seminars, contact the Technical and Education Center at:

The Technical and Education Center
Rochester Institute of Technology
P.O. Box 2404
Rochester, NY 14625
Phone: 716-443-1902
Fax: 716-443-1938
Email: tescctr@rit.edu

The Technical and Education Center Order Department fills domestic and international orders for such items as books, quality control tools, research reports, bibliographies, and periodicals like the *Graphic Arts Literature Abstracts*, the quarterly *Photography Conservation*, and the Technical and Education Center *Newsletter*. Quality control tools available at the order department include color printing aids, tone reproduction aids, resolution test targets, graph papers, and calculator programs. Photocopies of articles abstracted in GALA make home research possible.

The Technical and Education Center has been able to respond to industry needs over the years with a flexibility that few other resource centers have. The center is expanding—offering more seminars, publishing more bibliographies and books, and filling more orders. Industry support is growing, enabling the center to prosper.
Admission at a Glance: College of Graphic Arts and Photography

General Information on RIT’s admission requirements, procedures and services is included in detail on pages 16-17 of this Bulletin.

The School of Photographic Arts and Sciences, the School of Printing, and the Technical and Education Center of the Graphic Arts are included in this college.

The college is internationally known for its excellence and the contributions of its graduates to the world of communication. Faculty are experts in their fields and students work in laboratories with equipment of unsurpassed quality and variety. Students develop their creative abilities as well as technical competence.

Biomedical Photographic Communications—Prepares students for a career in media production working with allied health teams in hospitals, medical and dental research centers, and other health institutions. Students can qualify for employment at end of second year and have received the educational background necessary to apply for registration as a Biological Photographer. Degrees granted: AAS-2 year; BS-4 year.

Film and Television—The degree program in film and television features an introduction to both disciplines, with advanced work in either film or video. The curriculum emphasizes production and short periods of outside professional experience are encouraged, usually during the summer. The program is intended to acquaint students with film and TV as creative media and to develop the skills of production. Degrees granted: AAS-2 year; BS-4 year.

Photographic Illustration—Students use photography to solve visual communication problems leading to vocations in studio and mass media. Students develop innovative and individualized responses to visual problems, and are expected to become sensitive to contemporary graphic design. Degrees granted: AAS-2 year; BFA-4 year.

Photographic Processing and Finishing Management—Students develop a thorough knowledge of photographic processes, production techniques and procedures, and business, including aspects of promotion and selling in a competitive market. Degrees granted: AAS-2 year; BS-4 year.

Professional Photography—Students learn business skills as well as photography to enable them to seek employment in fields of their choice. Demands a high degree of application of students’ evolving abilities to obtain professional competence. Degrees granted: AAS-2 year; BS-4 year.

Photographic Science and Instrumentation—Students learn of the application of physics, chemistry, and mathematics to photography; of the materials and processes of photography; of the application of photographic processes to science and technology. Course content is comparable to that of engineering programs—mathematics, physics, and chemistry of radiation-sensitive systems, optics and image formation. Degrees granted: AAS-2 year; BS-4 year.

Printing—Prepares students for careers in printing management by developing an appreciation of aesthetic qualities of good printing and application of science and engineering in graphic arts. Theory and practice in management and communication skills are taught. Degrees granted: AAS-2 year; BS-4 year.

Newspaper Production Management—Prepares students for careers in technical management for the newspaper industry by developing appreciation of tactics and strategies for evaluating and controlling production problems. Incorporates engineering approaches to problem solving. Degree granted: BS-4 year.

Printing Systems Management—Prepares students for careers that emphasize measurement and control techniques, problem solving and optimization of operating conditions in the industrial technological environment in the printing industry. Degree granted: BS-4 year.

Printing and Applied Computer Science—Prepares students for entry positions in printing systems analysis, production control, engineering liaison, customer engineering, marketing support, process engineering, and production design. These lead to careers in production management, director of computer technology, and operations manager. Degree granted: BS - 4 year.
<table>
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<tr>
<th><strong>Freshman Admission Requirements</strong></th>
<th><strong>Transfer Admission with junior standing</strong></th>
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<tbody>
<tr>
<td><strong>Biomedical photographic Communications</strong></td>
<td>Associate's degree in biomedical photography or previous college work in audiovisual with strong emphasis in photography and biology.</td>
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<tr>
<td>- Elem. Algebra; Plane Geom. or Inter. Algebra; Trigonometry; Biology**</td>
<td>2.2</td>
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<tr>
<td><strong>Film and Television</strong></td>
<td>Total of 96 quarter credits including 24 credits in general studies, a college algebra course, a college design course, and 48 quarter credits equivalent to RIT's PPHG-200, 202, 203; PPHP-301, 302, 303; and PPHP-311, 312, 313. Remaining credit may be any combination of drawing, design, or photography. Opportunities for transfer are limited.</td>
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<tr>
<td>- Elem. Algebra; Plane Geom. or Inter. Algebra 1 year any science</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Photographic Illustration</strong></td>
<td>Total of 93 quarter credits including 48 quarter credits in photography, 24 quarter credits in general studies. &quot;C&quot; grade in RIT Summer PPHG-200 and PPHG-210 may be substituted for 18 credit hours of the photography. Opportunities for transfer are limited.</td>
</tr>
<tr>
<td>- 2 years any mathematics; 1 year any science</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Photographic Processing and Finishing Management</strong></td>
<td>Because of a liberal selection of professional electives, transferring at the end of two years is readily accomplished for business majors. Others should contact program faculty for evaluation of credit.</td>
</tr>
<tr>
<td>- Elem. Algebra; Plane Geom. or Inter. Algebra; Chemistry or Physics 1 year any science</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Professional Photography</strong></td>
<td>Total of 96 quarter credits including 24 credits in general studies, a college algebra course, a college design course, and 48 quarter credits equivalent to RIT’s PPHG-200, 202, 203; PPHP-301, 302, 303; and PPHP-311, 312, 313. Remaining credit may be any combination of drawing, design, or photography. Opportunities for transfer are limited.</td>
</tr>
<tr>
<td>- Elem. Algebra; Plane Geom. or Inter. Algebra; Trigonometry; Physics or Chemistry</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Photographic Science and Instrumentation</strong></td>
<td>Total of 80 quarter credits, including 20 quarter credits in calculus or higher mathematics, one year of college chemistry, one year of college physics, and 24 quarter credit hours in general studies. &quot;C&quot; grade in RIT Summer PPHS-200 and PPHS-210 or equivalent course, or experience-students in engineering science or liberal arts with math/science option usually meet these requirements.</td>
</tr>
<tr>
<td>- Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics or Chemistry</td>
<td>2.2</td>
</tr>
<tr>
<td><strong>Printing</strong></td>
<td>Associate's degree in graphic arts including wide range of courses in general studies, a year of college mathematics, a year of college chemistry or physics, and courses in business, management, computers and others. Considered on an individual basis; Student should contact the department.</td>
</tr>
<tr>
<td>- Elem. Algebra and Inter. Algebra; 1 year science</td>
<td>2.25</td>
</tr>
<tr>
<td><strong>Newspaper Production Management</strong></td>
<td>Associate's degree in graphic arts including wide range of courses in general studies, a year of college mathematics, a year of college chemistry or physics, and courses in business, management, computers and others. Considered on an individual basis, student should contact the department.</td>
</tr>
<tr>
<td>- Elem. Algebra; Trigonometry, or Inter. Algebra; Physics or Chemistry</td>
<td>2.25</td>
</tr>
<tr>
<td><strong>Anting Systems Management</strong></td>
<td>Considered on an individual basis.</td>
</tr>
<tr>
<td>- Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Physics and Chemistry</td>
<td>2.25</td>
</tr>
<tr>
<td><strong>Minting and Applied Computer Science</strong></td>
<td>Considered on an individual basis</td>
</tr>
<tr>
<td>- Elem. Algebra; Inter. Algebra; Trigonometry; Plane Geometry Physics or Chemistry</td>
<td>2.25</td>
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</tbody>
</table>

**Notes:**
- Wars of English are required in all programs, except where state requirements differ.
- "WAR" is required from the applicant covering visits to photographic departments of at least two hospitals.
- **PpK** for BS degree program are required to submit a portfolio, which might consist of a series of 8 x 10 black-and-white photographs, an 8 or 16 mm film, a short paper, or a written work that demonstrates creativity in the English language.
School of Photographic Arts and Sciences

Russell Kraus, Director

The program offerings of the School of Photographic Arts and Sciences are designed to prepare students for photographic career fields. The studies involve both technical and creative experiences for visual problem solving. Some chemicals and specialized equipment are supplied. Students are encouraged to purchase photographic equipment that will further their chosen careers. All first year BFA and BS students in professional photography are required to have their own hand-held small or medium format camera and a professional light meter. All upperclass professional photography students are required to have their own view camera and allied equipment.

Speakers and field trips broaden the student’s viewpoint. Participation in the field trips and summer study courses in Europe are encouraged.

Faculty

The School of Photographic Arts and Sciences faculty represents a remarkable cross section of various photographic fields. Many faculty members possess not only formal degrees but recognition from professional societies in the form of honors and titles indicating professional excellence.

Departments

Department of Applied Photography: Thomas Iten, Chairman—BFA Degree in Photography, MS Degree in Instructional Technology

Department of Film and Television; Dr. Russell Kraus, Acting Chairman and Program Coordinator—BS Degree in Film and Television

Department of Fine Arts Photography; Dr. Richard Zakia, Acting Chairman and Program Coordinator—MFA Degree in Photography

Department of Photographic Science and Instrumentation; Dr. Ronald Francis, Chairman and Program Coordinator—BS Degree in Photographic Science and Instrumentation, MS Degree in Photographic Science and Instrumentation.

Graduate programs

The School of Photographic Arts and Sciences offers two master’s degree programs: MFA in photography and the MS in photographic science and instrumentation. These are described in the separate Graduate Bulletin, available through the Admissions Office.

Summer Session

The School of Photographic Arts and Sciences offers a wide selection of photographic courses in the Summer Session. These range from beginning photography courses to those requiring a substantial photographic background. A special course is offered for high school and college art teachers desiring to build a background in basic photography. For detailed information write the director of Summer Sessions for a Bulletin.

Memberships

The School of Photographic Arts and Sciences maintains memberships in a number of professional organizations: American Management Association, American Society of Training and Development, Association of Professional Color Laboratories, Master Photo Dealers and Finishers Association, National Microfilm Association, Professional Photographers of America, Society of Motion Picture and Television Engineers, Society of Photographic Scientists and Engineers, University Film Association.

Requirements for admission

All applicants for admission must meet the general requirements for admission to the Institute. The requirements for admission to the School of Photographic Arts and Sciences vary with the program.

It has been our experience that desirable applicants should rank within the top 25 percent of their high school class, score above a combined 1050 SAT score, or achieve an ACT composite of 23. The Institute prefers not to be arbitrary in the establishment of admission criteria and therefore will look at all factors in combination, such as, College Board scores, high school records, records of achievement, letters of recommendation, and especially the student’s written statement of educational objectives.

All applicants, except those transferring from other colleges and universities, must take entrance examinations.

Biomedical Photographic Communications

Applicants for this undergraduate program must have had elementary algebra, plane geometry or intermediate algebra, trigonometry and biology. Chemistry and/or physics is recommended. A report of science required from the applicant covering visits to photographic departments of at least two hospitals. A personal interview may be required.

Rim and Television

All applicants for this undergraduate program must have had elementary algebra, plane geometry, and one year of science. A personal interview may be required.

Photographic Illustration

Applicants for photographic illustration must have had two years of mathematics and one year of science. Art courses are recommended.

Photographic Processing and Finishing Management

Applicants for admission in this program should have had two years of high school mathematics, elementary and intermediate algebra, and chemistry. Additional science is recommended.

Professional Photography

Applicants for professional photography must have had two years of high school mathematics, and one year of science.
Photographic Science and Instrumentation
Applicants for admission to the undergraduate program in photographic science and instrumentation must have had three years of high school mathematics through trigonometry and either physics or chemistry. Their high school record should indicate a capacity to undertake a science program with a reasonable chance of success.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

Transfer students
A transfer student is a student with acceptable transfer credits who has been accepted into a degree program. He or she may be classified as a first, second, third or fourth year student. Transfer students should be aware that because of credits carried with them to RIT, they may have a lighter than normal academic load. Normally a student may not carry more than two photographic lab courses.

Transfer credit and transfer programs
Transfer credit will be given for applicable courses completed at accredited institutions with a grade of "C" (average) or better. It is not possible for photography students to transfer into the common first year (photography or photographic illustration) from photographic science or photographic processing finishing management or other programs at RIT, without incurring loss in time or added expense. Regular transfer procedures apply.

Credit for photography courses will not be accepted without a substantiating portfolio. This work will be reviewed by the appropriate faculty.

Transfer students should expect to have light schedules during part of their residence at RIT because of prerequisite requirements and scheduling problems.

Summer transfer
A summer transfer student is one who meets the qualifications of the transfer conditions as outlined above.

There are transfer programs into the second or third year of most of the majors offered by the school. These are for students who have transfer credits in science, art, business, and/or photography. Students in the transfer stream may find it necessary to attend classes during one or more summers.

Transfer Admission
The transfer credits necessary for entry into any photographic program must have been completed prior to submitting the application for admission to the June transfer program.

Requirements for admission to second year**

Rim and Television
A total of 33 quarter credits, including 12 acceptable credits in general studies, an acceptable science course (nine quarter credits), and/or an acceptable design studio course (six quarter credits); plus 12 credits in photography, additional art courses, or science courses; and a "C" grade or better in summer course "PPHG-200 (Photography) and PPHG-210 (Materials and Processes of Photography).

Photographic Illustration
A total of 30 quarter credits, including 12 acceptable credits in general studies and 6 acceptable credits in studio courses in drawing and design, and 12 credits in photography or additional art courses, plus a "C" grade or better in summer courses "PPHG-200 (Photography) and PPHG-210 (Materials and Processes of Photography).

Photographic Processing and Finishing Management
A total of 37 quarter credits, including 12 quarter credits in general studies, acceptable credits in college math (6 quarter credits) and 16 quarter credits in a combination of business and management, plus 3 additional credits in photography or science.

Professional Photography
A total of 33 quarter credits, including 12 acceptable credits in general studies, acceptable science course or courses (9 quarter credits), and/or an acceptable design studio course (6 quarter credits); plus 12 credits in photography, additional art courses, or science courses; and a "C" grade or better in summer courses "PPHG-200 (Photography) and PPHG-210 (Materials and Processes of Photography).

Photographic Science
A total of 39 quarter credits, including 12 acceptable quarter credits in general studies, acceptable courses in calculus (12 quarter credits) or higher mathematics, and general physics or chemistry of not less than one year in either, and 3 additional credits in photography or science, plus a "C" grade or higher in summer courses "PPHS-200 (Fundamentals of Photographic Science) prior to admission to the second year.

Requirements for admission to third year

Photographic Illustration
A total of 93 quarter credits including 24 acceptable quarter credits in general studies. The remainder of 69 quarter credits must include a minimum of 12 quarter credits of studio courses in design and drawing, plus nine credits of History and Aesthetics of Photography, or their equivalents. (A candidate lacking some of these credits of studio courses in design and drawing, plus 9 credits of History and Aesthetics of are required. If there are insufficient photography studio courses the applicant will be required to take ' PPHG-200 and PPHG-210 during the summer.

Professional Photography
A total of 96 quarter credits including 24 acceptable quarter credits in general studies, 9 credits in science or higher mathematics and 6 credits of design. Also 57 quarter credits in any combination of photography-related courses of which 48 credits must be equivalent to PPHG-201, 202, 203, PPHP-301, 302, 303, and PPHP-311,312 and 313.

Photographic Science
A total of 80 quarter credits including 24 acceptable quarter credits in general studies, a minimum of 20 quarter credits in calculus or higher mathematics, and acceptable courses of not less than one year each in general chemistry and general physics, a computer programming course, plus a "C" grade or higher in summer courses "PPHS-200 and PPHS-210 (Fundamentals of Photographic Science I and II) prior to admission to the third year.

*These are summer courses required by those persons who do not have a sufficient photographic background. Maximum of 24 students accepted.
*There is a limit of approximately 100 students in each of the second years of photographic illustration and professional photography.
Biomedical Photographic Communications

The biomedical photographic communications program is designed to prepare the student for a career in media production within the scientific community. The biomedical photographer can be part of the allied health teams in hospitals, medical and dental research centers or in other health institutions.

The first year courses introduce basic theories and principles as well as practical experience with photographic equipment and photographic processing. The courses are integrated to prepare the student for a summer internship in a medical or scientific facility. The completion of the summer internship is required for the associate’s degree in biomedical photography.

The second year rounds out the prerequisites for a beginning career in biomedical photography. Courses include photomacography, photomicrography, and other specific studies required for this career. The junior and senior years’ curricula include electives in film making, television and advanced color printing, which can be selected in consultation with the advisor.

Transfer candidates must have an evaluation prior to admission. A personal interview may be required of the candidate for this program. The student may be required to attend summer courses to satisfy prerequisite courses.

The Biological Photographic Association, the certifying and registering professional organization in the biomedical photography field, has cooperated in the preparation of criteria and in program development. Thus the RIT program can provide the educational background which will form the basis for qualifying to become a Registered Biological Photographer (RBP), after the student enters into his or her profession full time.

<table>
<thead>
<tr>
<th>Year</th>
<th>Course Name</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<tbody>
<tr>
<td>First Year</td>
<td>PPHB-201, 202, 203 Biomedical Photography I</td>
<td>6</td>
<td>6</td>
<td>6</td>
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<tr>
<td></td>
<td>PPHG-211, 212, 213 Materials and Processes of Photography</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td></td>
<td>PPHB-211 Survey of Biomedical Photography</td>
<td>1</td>
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<td></td>
<td>SBIG-201, 202, 203 General Biology</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<tr>
<td></td>
<td>SBIG-205, 206, 207 General Biology lab</td>
<td>1</td>
<td>1</td>
<td>1</td>
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<tr>
<td></td>
<td>General Studies Elective - Lower Division</td>
<td>4</td>
<td>4</td>
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<td></td>
<td>Physical Education Elective</td>
<td>0</td>
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<td></td>
<td>Summer Internship (4th Quarter) for 10 weeks</td>
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<tr>
<td>Second Year</td>
<td>PPHB-301, 302, 303 Biomedical Photography II</td>
<td>5</td>
<td>5</td>
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<td></td>
<td>PPHP-311-312, 313 Basic Color</td>
<td>3</td>
<td>3</td>
<td>3</td>
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<td></td>
<td>PPHP-331, 332, 333 Preparation of Biomedical Visuals</td>
<td>3</td>
<td>3</td>
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<td></td>
<td>General Studies Electives - Lower Division</td>
<td>4</td>
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<tr>
<td></td>
<td>Physical Education Elective</td>
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<tr>
<td>Third Year</td>
<td>PPHP-401, 402 Advanced Photography in Biomedical Communications</td>
<td>4</td>
<td>3 to 4</td>
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<td></td>
<td>Professional Electives</td>
<td>3 to 4</td>
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<tr>
<td></td>
<td>Science Electives (Advanced Courses in Biology)</td>
<td>3 to 4</td>
<td>3 to 4</td>
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<tr>
<td></td>
<td>General Studies - Upper Division</td>
<td>5</td>
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<tr>
<td></td>
<td>Summer Internship (Optional)</td>
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<tr>
<td>Fourth Year</td>
<td>PPHP-501, 502, 503 Senior Thesis Project</td>
<td>4</td>
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<td></td>
<td>General Studies - Upper Division</td>
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<td></td>
<td>Business Electives</td>
<td>4</td>
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<td></td>
<td>Professional Electives</td>
<td>3 to 4</td>
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</table>

*Associate's degree awarded upon successful completion of second year
**Possible recommended professional electives:
PPHP-401, 402, 403 Film Making
PPRT-591, 592, 593 Reproduction Photography, Offset Plate Making, Offset Presswork.
Electives will be made with the coordinator’s permission
Other electives with advisor’s consultation
*See Pg. 28 for Policy on Physical Education.
**See Pg. 78 for General Studies requirements.
Film and Television

The courses in film and television are designed for students who recognize the motion picture medium as an expressive force uniquely important in today’s world. They are intended to acquaint students with film and television as creative media and to develop the skills of production.

The degree program in Film and Television features an introduction to both disciplines with advanced work in either film or video. The curriculum emphasizes production and short periods of outside professional experience are encouraged; usually during the summer.

Courses are structured as lecture-laboratory courses, designed to develop individual skills in communicating with moving images and the aesthetic principles governing the art. They also are offered to students in Professional Photography, Photographic Illustration or Biomedical Photographic Communications; and other Institute students with a basic knowledge of photography may enroll with the permission of the instructor.

Students typically produce several short films or programs, working through all phases of production: scripting, preproduction planning, budgeting, shooting, sound editing and working with a laboratory. Students combine their learning of visual and sound artistry through hands-on experience with camera and sound equipment. The film and video projects are often designed by the individual student. Thus a wide variety of styles and intentions are expressed in the work of the department.

### Course Schedule

<table>
<thead>
<tr>
<th>Year</th>
<th>First Quarter</th>
<th>Second Quarter</th>
<th>Spring Quarter</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Year</td>
<td>FADF-221, 222, 223 Design</td>
<td>PPHG-201, 202, 203 Photography</td>
<td>PPHG-211, 212, 213 Materials and Processes of Photography</td>
</tr>
<tr>
<td></td>
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*General Studies Electives - Lower Division*

- 4

*Physical Education Elective*

- 0

<table>
<thead>
<tr>
<th>Second Year</th>
<th>General Studies - Lower Division</th>
<th>Science Option Electives</th>
<th>PPHF-301, 302, 303 Film Making (I)</th>
<th>PPHF-417, 418, 419 TV Production</th>
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<tbody>
<tr>
<td></td>
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*Physical Education*

- 0

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<thead>
<tr>
<th>Third Year</th>
<th>General Studies - Upper Division</th>
<th>Film/Television Post Production</th>
<th>PPHF-411, 412, 413 Film Making (II)</th>
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<tr>
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*Non-Photo Electives*

- 4

<table>
<thead>
<tr>
<th>Fourth Year</th>
<th>General Studies - Upper Division</th>
<th>Film/Television Post Production</th>
<th>PPHF-421, 422 Script Writing</th>
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<tbody>
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</table>

**Prof. Elective Courses (one per Qtr.)**

- 2

Or

- Prof. Elective Course in Fall Qtr.

- 2

**Non-Photo Electives**

- 4

1. Associate's degree awarded upon successful completion of second year.
2. See Pg. 28 for Policy on Physical Education.
3. See Pg. 78 for General Studies requirements.
4. Recommended Science Elective Options (2nd Year) Cr. 3/qtr.

- SCHG-281, 282, 283 General Chemistry
- SSEG-201, 202, 203, 204 Contemporary Science
- SBIG-201, 202, 203 General Biology
- SPSP-211, 212, 213 College Physics

*Other with permission from Coordinator*

3. Recommended Non-Photographic Electives (3rd and 4th Year) Cr. 4/qtr.

- Psychology
- Sociology
- Music

*Various courses in these disciplines are offered by the College Philosophy of General Studies

- Literature
- BBIA-210 Financial Accounting

*Other with permission from Coordinator*

4. Professional Elective Courses (Any three of the following courses)

- Directing Cr. 2/qtr.
- Visualization Cr. 2/qtr.
- Sound Recording Cr. 2/qtr.
- Script Writing Cr. 3/qtr.
Photographic Illustration

Illustration Photography
Film Making
Photojournalism
Photography as a Fine Art

The curriculum leading to a bachelor of fine arts degree in photographic illustration is planned to prepare the student for those areas of photography which require the solving of visual communication problems with a sound technical base. Students are encouraged to develop innovative and individualized responses to visual problems; they are expected to become sensitive to contemporary graphic design and to visual aspects of their society; they are asked to be perceptive and responsible citizens of an evolving society.

Career opportunities
The photo students who elect the BFA program may produce advertising photography for magazines, direct mail pieces, posters, billboards, and packages. They may produce editorial photography, magazine illustrations, picture essays, and book illustrations. They may illustrate brochures, annual reports, and other visual materials for business, government, and educational institutions. They may make educational, entertainment business films and TV commercials. They are qualified to function as artists using photography as a principal means of expression. They may become scholars, photohistorians, photojournalists, or museum curators.

Areas of concentration
The bachelor of fine arts program is subdivided into four major areas of concentration, each of which is varied enough to provide the student with a broad-based photographic education. Each is also flexible enough in approach to provide the student who so desires within the advisory system, to select those courses which provide for and best suit his or her particular needs.

The first year is common to all BFA students and is based on educational background and availability of faculty and facility.

Bachelor of Fine Arts in Photographic Illustration

<table>
<thead>
<tr>
<th>Major Photographic Electives:</th>
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<tbody>
<tr>
<td>Illustration Photography</td>
</tr>
<tr>
<td>Photojournalism</td>
</tr>
<tr>
<td>Film Making</td>
</tr>
</tbody>
</table>

Major Photographic Electives:
- Illustration Photography: 3 3 3
- Photojournalism: 0 0 0
- Film Making: 2 2 2

Bachelor of Fine Arts professional

Gi6C1v6S

PPHF-401,402,403 Film Making I
PPHF-407,408, 409 History and Aesthetics of Film
PPHF-421,422 Scriptwriting
PPHL-421,422, 423 Nature Photography
PPHL-521, 522, 523 Color Photo Workshop
PPHL-411, 412, 413
- Photojournalism I & II PPHL-511, 512, 513
- PPHL-401,402,403 Photography as a Fine Art I & II PPHL-501, 502, 503
- PPHL-431, 432, 433 Illustration Photography I & II PPHL-531, 532, 533
- PPHL-437, 438, 439 Visual Communications Workshop
PPRT-591, 592, 593 Reproduction Photography, Offset Platemaking Offset Presswork
PPHL-599 Independent Study

Others to be selected in consultation with advisors and staff chairman.
Photo Management Program Trains Industry Managers

The curriculum in photographic management is designed to prepare individuals to assume management positions in the photographic processing and finishing industry. The student pursuing this course of study will be involved with obtaining: (1) a thorough knowledge of the photographic process in order to obtain the highest possible quality from the process; (2) production techniques and procedures necessary to obtain quality in the shortest possible time; and (3) the business aspects of promoting and selling the economically-produced quality product in a competitive market.

Students in this program will spend a large portion of their time in our fully equipped color processing and finishing laboratory to gain hands-on experience in production, quality control, and management techniques.

This is a four-year baccalaureate program with the career objective of plant supervision and management; however, those choosing to terminate after two years are awarded the AAS degree and should qualify for area supervisory positions in a finishing plant.

Photographic Processing and Finishing Management

Professional electives
BBUA-331, 332 Accounting I, II (Cost)
BBUB-301 Business Law
BBUB-404 Management (Business Policy)
BBUF-281 Money and Banking
BBUF-441 Finance (Financial Management)
GLLC-402 Conference Techniques
GLLC-501 Effective Speaking
PPHM-506, Theory of Corrective Color Printing
PPHM-511, 512, 513 Advanced Machine Processing
PPHM-599 Independent Study
PPHP-411, 412, 413 Sensitometry
PPHP’441, 442, 443 Advanced Color Printing
SCHG-205, 206, 207 Chemical Principles
Others to be selected in consultation with advisors.

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<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
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<td>PPHS-201, 202, 203 Photo, for Scientists &amp; Engineers</td>
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<td>SMAM-201, 202 College Algebra and Trig</td>
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<td>BBUB-201 Management</td>
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<td>PPHM-311, 312, 313 Basic Color</td>
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<td>PPHM-204 Orientation to Production Ph. Processing &amp; Finishing</td>
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<td>Second Year</td>
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<td>PPHM-301, 302, 303 Production Processing &amp; Finishing</td>
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<td>ITEE-310, 311, 312 Electricity and Electronics</td>
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<td>GSEE-301, 302 Economics I and II</td>
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<td>ICSE-200 Survey of Computer Science</td>
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<td>Third Year</td>
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<td>PPHM-401, 402, 403 Photographic Process Control</td>
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<td>PPHM-410, 411, 412 Training and Supervision</td>
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<td>PPRM-503, 504 Statistics of Quality Control</td>
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<td>BBUB-401 Behavioral Science</td>
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<td>Fourth Year</td>
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<td>BBUA-210, 211 Accounting</td>
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<td>BBUM-263 Marketing</td>
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<td>Professional Electives**</td>
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<td>PPHM-520 Operation, Care and Maintenance of Photofinishing Equipment</td>
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<td>PPHM-501, 502, 503 Senior Seminar</td>
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</tbody>
</table>

(See Pg. 28 for Policy on Physical Education.
**Professional electives must be chosen in consultation with the student’s academic advisor.
Upon successful completion of second year, the associate of applied science degree is awarded. It is required that students seeking the baccalaureate degree spend a summer in an internship program.
Professional Photography

The professional photography curriculum prepares the student for a career in visual communications and its related fields, that is, solving a client's visual needs.

To this end, during the first two years, the student acquires a broad base of knowledge and skills in the visual or aesthetic as well as the technical areas of photography. In the final two years, each student follows an advanced program of elective courses based on his or her particular field of interest. Courses may be selected that lead to specialized skills or to a very broad background for future growth and specialization. Senior students with high grade point averages may work on a one-to-one basis in an area of advanced specialization through independent studies. Emphasis is also placed on business skills and the realities of current and projected trends, both within the profession, and in the socioeconomic environment of which the graduate expects to become a part. This program also gives an excellent background for a student who chooses a career in photo-related areas such as that of studio management, technical representation, and similar professions.

The student learns from instructors who have come from the profession and who have established their competence in fields ranging from advertising illustration through commercial, industrial, portraiture, color processing and printing, and special laboratory techniques.

Broadly stated, this program involves studies and experiences in both technical and creative aspects of visual problem solving. The curriculum is planned to give students skills in business as well as photography, to qualify them to seek employment in the field of their choice.

Science option electives (second year)
SMAM-201, 202, 203 College Algebra and Trigonometry
SCHG-281, 282, 283 General Chemistry
SSEG-201, 202, 203 Contemporary Science
SBIG-201, 202, 203 General Biology
SPSG-211, 212, 213 College Physics
And also the following may be considered if all necessary prerequisites have been met.
SCHG-205, 206, 207 Chemical Principles
SCHC-211, 212, 213 General Chemistry

Business Course Requirements
The business courses required in the third year are: New Ventures Development, Small Business Management and Finance, and Small Business Marketing and Planning. These courses may be selected from the B.S. Elective List and must be completed on the RIT campus. These courses are unique and not transferable.

Non-Photographic Electives
All students are required to complete 12 hours of non-photographic electives prior to completing the Bachelor of Science degree. These elective courses may be selected from the offerings in:

1. The Communication Design Program, College of Fine and Applied Arts
   * 2. College of Business
   * 3. College of Engineering
   * 4. College of General Studies
   * 5. Audiovisual Communications Program, Institute College
   * 6. College of Science
   * 7. School of Printing

There will be no seats specifically set aside in courses in these programs for photo students. A student must meet prerequisites for any course he desires to enter, or have permission from the instructor. This may mean that students may have to wait until registration day at the opening of each quarter to register for these courses. Courses from other areas of the Institute may be utilized after careful consultation with and approval from the student's advisor in writing. Students may transfer up to 4 quarter credit hours of non-photographic electives to RIT toward this 12-hour requirement.

Bachelor of Science professional electives
PPHF-401, 402, 403 Film Making I
PPHF-407,408, 409 History and Aesthetics of Film
PPHF-421,422 Scriptwriting
PPHF-501, 502, 503 Film Making II
PPHF-507, 508, 509 Introduction to TV Production
PPHL-411,412, 413 Photojournalism I
PPHL-511, 512, 513 Photojournalism II
PPHM-301, 302, 303 Machine Processing
PPHP-407 AV Preparation and Presentations
PPHP-408 Scientific and Technical Applications of Photography
Others to be selected in consultation with advisor and staff chairman.

Photographic Science and Instrumentation

Photographic science is concerned with the materials and processes of photography; photographic instrumentation with the application of photographic processes to science and technology. A primary objective of the photographic scientist is the improvement of existing materials and processes of photography and the development of new methods and materials. The instrumentation engineer is concerned with the planning of new applications of photography or the adaptation of existing methods to new or special requirements. Whereas chemists, physicists, and engineers of disciplines other than photography are employed in both of these activities, there is a need, on an increasing scale, for the specialist in photographic science and instrumentation.

A broad segment of American business is an employer of graduates of the Photographic Science and Instrumentation Division; for example, aerospace, business machines, information handling, microelectronics, scientific instruments, graphic arts, industrial chemicals, and photographic materials and equipment. Aside from industry, many graduates are employed by governmental agencies and laboratories. Graduates with an interest in marketing often move into positions as sales and technical representatives.

The Photographic Science and Instrumentation Division offers three programs leading to both undergraduate and graduate degrees: a four-year program resulting in a bachelor of science degree, a five-year program resulting in simultaneous awarding of the bachelor of science and master of science degrees, and an MS degree program for students holding a bachelor of science degree in science or engineering.

In addition, it is possible for students with satisfactory credits in mathematics, chemistry, and physics to transfer into either the four-year or five-year program at the beginning of the second or third year by taking a transfer program during the summer quarter preceding transfer.

In recognition of the division’s belief that much degree-relevant learning in photographic science and instrumentation can take place outside the Institute’s classrooms, all undergraduates are encouraged to acquire photoscience industrial experience during their program at RIT.

Four-year program
Bachelor of Science in Photographic Science and Instrumentation

The course content in this program is typical of science and engineering programs. The first two years contain fundamental courses in mathematics, chemistry, and physics. The student simultaneously applies these fundamentals to the study of photographic materials and instrumentation. The photographic science core program then continues with courses in radiometry, the structure of images, color and vision, and methods of engineering photographic systems. Third and fourth year students select elective courses in photographic science and instrumentation, engineering, science, mathematics, and graphic arts to broaden their base of knowledge. An undergraduate thesis is required.

Opportunities also exist to perform thesis work under the direction of selected scientists and engineers in other RIT colleges as well as from local industry as adjunct faculty.

Five-year program
Bachelor of Science and Master of Science in Photographic Science and Instrumentation

Course content during the first three years is similar to the bachelor of science program and provides the student with a background in mathematics, chemistry, physics, and basic photographic science and instrumentation. The fourth year is spent taking advanced elective courses in chemistry, physics, mathematics, engineering, and/or photographic science and instrumentation. The fifth year is devoted to graduate courses and a graduate thesis.

Admission into the five-year program is normally made at the end of the third year. Completed applications should be sent to the Admissions Office.

Graduate program,
Master of Science in Photographic Science and Instrumentation

The graduate program is designed to prepare persons holding a bachelor of science degree in physics, chemistry, or engineering for positions in the field of photographic science and instrumentation. Applicants without acceptable understanding of photographic materials and processes are required to take a summer course before final admission to the graduate program. This full-time summer course, PPHG-700 (Principles of Photographic Science) begins in June and runs for 10 weeks. Certain graduate courses are offered during the evening on a rotating basis for those desiring to obtain the master of science degree on a part-time basis. Information regarding which courses are offered in which years during the evening may be obtained from the division.

The graduate program is administered by the Council on Graduate Studies and is under the direction of the graduate coordinator (see Graduate Bulletin for particulars).
Photographic Science and Instrumentation

Recommended undergraduate electives

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<thead>
<tr>
<th>Course</th>
<th>Quarter Credit Hours</th>
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<tbody>
<tr>
<td>PPHS-201, 202, 203</td>
<td>4</td>
</tr>
<tr>
<td>SCRC-211, 212</td>
<td>3</td>
</tr>
<tr>
<td>SCHG-205, 206, 207</td>
<td>1</td>
</tr>
<tr>
<td>SCRC-230 Intro, to Organic Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>SMAM-251, 252, 253</td>
<td>4</td>
</tr>
<tr>
<td>*General Studies Electives - Lower Division</td>
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<tr>
<td>*Physical Education Elective</td>
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Second Year

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<tr>
<th>Course</th>
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<tbody>
<tr>
<td>PPHS-281 Applied Processing</td>
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<tr>
<td>PPHS-303 Color Systems</td>
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</tr>
<tr>
<td>SMAM-305 Calculus</td>
<td>3</td>
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<tr>
<td>SMAM-306 Differential Equations</td>
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<tr>
<td>KSCP-205 Computer Techniques</td>
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<tr>
<td>SPSP-311, 312, 313 University Physics</td>
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Third Year

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Fourth Year

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<td>SCRC-211, 212</td>
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<td>SCHG-205, 206, 207</td>
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<tr>
<td>SCRC-230 Intro, to Organic Chemistry</td>
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<tr>
<td>SMAM-251, 252, 253</td>
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Fifth Year

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<td>SCRC-211, 212</td>
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<td>SCRC-230 Intro, to Organic Chemistry</td>
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<tr>
<td>*Physical Education Elective</td>
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*See Pg. 28 for Policy on Physical Education.
*See Pg. 76 for General Studies requirements.
School of Printing

Mark F. Guldin, Director

The School of Printing at Rochester Institute of Technology is one of the relatively few educational institutions in the United States that offers major degree programs in printing. It is the largest degree-granting school in its field in the country, and enjoys a position of leadership because of its extensive laboratory facilities, its up-to-date programs of study, and its competent faculty.

The primary objective of the School of Printing is to prepare students—both men and women—for successful careers in the printing, publishing and allied industries. While students get considerable hands-on experience with the latest equipment in many technological areas, the emphasis is on learning "why" rather than "how-to." Printing school graduates have successful careers in management at all levels in the graphic arts industry, in selling, supervision, design, and research among others.

These occupational objectives involve certain educational objectives. These are to help the student develop the following: a broad understanding of the procedures involved in the major important processes; an appreciation of the aesthetic qualities of good printing; an understanding of the applications of science and engineering in the graphic arts; a knowledge of theory and practice in the various aspects of management; skills in communication, and an understanding of the student's professional and general environment as a means of developing personally as a well-rounded individual and a responsible citizen.

The printing industry is one of the country's largest, employing not only persons skilled in its own special technologies but also chemists, physicists, engineers, accountants, printing educators, marketing specialists, designers, artists, photographers, copy editors, computer specialists, production and traffic managers, and the closely-related packaging specialist. RIT has all of these programs within its 10 colleges—men and women in the School of Printing have this unique opportunity to elect courses that give them a breadth in preparation for a career of their own choosing in this growing field.

The School of Printing offers four bachelor of science degree programs. They are: printing, newspaper production management, printing systems management, and printing and applied computer science.

Graduate program

The School of Printing also offers graduate programs in printing technology and printing education leading to the master of science degree, described in the Graduate Bulletin. Information concerning these programs is available from the Admissions Office.

Organization

For purposes of program administration, planning, supervision, and student counseling, the School of Printing is organized into four divisions: Design-Composition, Photography-Plate-Press, Management, and Graduate.

Printing

Prior to September 1979 the printing program was the only bachelor of science degree program available at the School of Printing, and the school's international reputation is built on it. From its inception the program has drawn from nearly every state in the union and from numerous Central and South American, African, Asian and European countries.

Although the school has recently introduced special programs to meet important and specific industry needs (described on the succeeding pages of this catalog) 80 percent or more of the student body continues to enroll in the printing program. It offers the greatest amount of flexibility in allowing students to customize their programs for the careers they seek.

This program is based on a sound foundation in the technologies, important to the printing industry, and also includes require courses in important management areas. It allows the students numerous electives from which they can choose management and/or technical courses according to their career goals.

The printing program's core of basic required courses is indicated in the program outlined on page 102. While each student is expected to use initiative in selecting elective courses, each division administers program sequences that may be developed from professional elective courses.

Design-Composition Division

Archibald D. Provan, Staff Chairman

It is necessary for most people in the graphic arts to have an appreciation for good design and typography because much of their time will be spent evaluating the printed word from the standpoint of design and production. Many printing firms have organized their own design and composition facilities in order to offer a complete service to their customers and, in turn, have a need for employing well-qualified people in these areas. In addition, the needs of implant, and corporate advertising departments for educated people in the creative fields and for printing buyers are extensive. For these reasons, the Design-Composition Division not only offers introductory creative courses for those students who will pursue other areas of endeavor, but also offers sequences in the design field in which the student may specialize. These sequences include:

Book design and book production

A sequence designed to prepare students to fill a variety of positions in the book publishing and book manufacturing industries. Although particularly oriented for those interested in book design, this flexible program can be altered to fit the specific needs of others interested in the wide range of opportunities the publishing industry has to offer.

Design and typography

A program for those students with a basic interest in the aesthetics of printing. The student is given a broad range of courses, calligraphy to typography, design to copy preparation, which are important for entering the field of design, typography, or any of the other creative fields of the printing industry.

Composing room procedures

A sequence giving printing students an overview of typesetting techniques and the handling of materials as they are related to layout and design. The diversity and challenges in this field are reflected through a series of courses ranging from electronics in computerized typesetting through estimating and other management areas related to the composing room.
Photography-Plate-Press Division
Charles J. Weigand, Staff Chairman

The production segment of the industry is the core area of most printing facilities. All managers in the industry from design through sales and from personnel through finance must have a firm grasp of this core area if their decisions are to be valuable ones. This is the “home area” for the production manager in plants producing books, newspapers, forms or commercial printing. For these reasons, the Photography-Plate-Press Division offers courses in all the major printing processes, encompassing operations and materials in camerawork, stripping, platemaking, presswork, inks, substrates binding, finishing, and distribution.

This division administers sequences in various production areas such as:

Lithographic technology
This program gives the student an in-depth knowledge of lithographic management. The student is prepared for positions such as technical service representative, production scheduling, quality control analysis, and technical sales.

Packaging printing
This sequence, offered in conjunction with the Department of Packaging Science, emphasizes the problems encountered in printing on many different kinds of materials, and in packaging many different kinds of products. This program prepares students for positions in production and sales with the packaging printer, an expanding segment of the graphic arts.

Reproduction photography
A program for students who wish to specialize in the photomechanical processes in printing. The student is prepared for management positions with camera service departments within printing firms and with color separation service companies.

Flexographic technology
A sequence for students who wish to enter the flexography industry with a background designed to be particularly helpful for their careers. This allows the student to use elective credits to emphasize appropriate technical course work and take advantage of many management electives.

Management Division
W. Frederick Craig, Staff Chairman

To facilitate a high level decision-making process, it is necessary for most management personnel in the graphic arts to have a clear understanding of the interrelationships that exist among the marketing, financial, personnel, and production segments of the industry. To this end, the Management Division offers course work in these various areas. In collaboration with the other divisions, the Management Division provides the “topping” for shaping future managers in the graphic arts. In collaboration with the other divisions, the seven full-time faculty members and two part-time specialists in this division, all of whom have significant work experience in the printing industry, offer sequences of courses in the following areas:

Estimating
Estimating is at the very heart of the successful economic well-being of the printing industry. Accurate job costing and analysis can mean the difference between success and failure for any printing concern. This sequence prepares students for positions found in every segment of the industry from commercial printing through packaging and specialized forms manufacturing.

Computer applications
Computers are of increasing importance to the printer as they can perform the usual business data processing tasks as well as the more involved specialized applications in typesetting and optical character reading devices. This sequence is designed to provide the student with a basic understanding of computers and of their potential in production management.

Newspaper production management
A program for students who wish to specialize in newspaper management. This sequence emphasizes production, labor, finance, and marketing in relation to the newspaper industry. New technological changes in the industry are emphasized.

Financial management
This sequence utilizes courses in both the School of Printing and the College of Business. Students prepare themselves for the financial aspects of managing a graphic arts business.

Personnel management
This sequence introduces the student to basic concepts of personnel management from a behavioral science standpoint. Drawing heavily on courses in the College of General Studies, the sequence prepares persons for positions in personnel management, labor relations, and other positions where the ability to work closely with individuals is of prime importance.

Production management
Students in this sequence are prepared to enter all phases of printing dealing with production problems in the commercial printing industry as well as in the newspaper, book, and magazine publishing industries. Management positions evolving from this sequence are that of scheduler, assistant production manager, and production manager.

Sales-marketing
This program prepares students for positions in printing sales and marketing, printing equipment sales, and typographic sales as well as positions as technical representatives for graphic arts supply firms. Students are also prepared for sales positions in allied industries such as ink, paper, and packaging, and for positions as printing buyers and brokers.

Career opportunities
The graduate with a BS degree in printing has available a variety of career choices. The four-year program prepares graduates for a wide variety of technical and management positions in the printing and related industries. Among these are positions in administration and general management, production management, production and quality control, sales and sales management, estimating, cost and financial control, process and plant development, graphic design, newspaper production management and graphic arts research. A variety of positions in commercial printing, packaging, and service industries are available to graduates, as are positions in the book, newspaper, and magazine publishing industries.
The two-year portion of the program is for those who wish to enter employment after two years of college study. Graduates of this program obtain employment as an assistant in such classifications as estimating, production control, specification writing, purchasing, copy preparation, typography and layout, and sales.

Special requirements for admission
Overall requirements for admission are given in the general information section of this bulletin. In addition, it is important that an applicant have an interest in printing courses, which may be shown by success in high school printing courses, by extracurricular activities in connection with a school newspaper or yearbook, by employment in a printing establishment, or by gaining an idea of the activities and opportunities in the field through investigation or personal associations. While high school graduation is stated as a basic requirement for admission, with intermediate algebra and one year of science as specific prerequisites, preference is given to applicants who have had some additional work in mathematics, physics, or chemistry.

Scholarships and financial aid
Scholarships available to students in the School of Printing number approximately 55, and range in value from $100 to full tuition. Some of these awards may be continued beyond one year depending upon the records made.

Competitive scholarships are offered through the National Scholarship Trust Fund of the Education Council of the Graphic Arts industry. Anyone interested in applying for one of these scholarships should do so early in the senior year in high school, since the application must be filed in advance of the date set for competitive examinations. If information is not available in the local high school, the candidate should write to:

Education Council of the Graphic Arts Industry
4615 Forbes Avenue
Pittsburgh, PA 15213

For information regarding scholarships administered by the Institute, write to the Financial Aid Office.

Areas of study for the Printing Program
The Printing Program requires a four-year course of study that leads to the bachelor of science degree in printing. The degree of associate in applied science is offered upon successful completion of the first two years.

Two-year programs for college graduates
Many college graduates with baccalaureate degrees may complete the professional requirements for the bachelor of science degree in printing in two years of concentrated study. This is because they have already satisfied many requirements in general studies, mathematics, and science elsewhere. Upon admission, such students are usually given the equivalent of two years of credit. Those who have taken courses which parallel those required in their chosen majors in the School of Printing normally are given additional transfer credit, if grades are “C” or better.

Cooperative program
The cooperative program in printing is a flexible and voluntary program which will be available to printing students who have successfully completed the first two years of the required printing program and to qualified printing transfer students accepted at the junior-year level. The intent of the cooperative program in printing is to afford students the opportunity of enlarging and improving their college education by combining formal, classroom learning with practical work experiences. Printing students following the cooperative program will have a wide variety of graphic arts work experiences available to them. This cooperative program in printing will require up to five years for completing BS degree requirements.

Math/Science sequences
Each student must take nine or ten credits of college mathematics as required by the School of Printing. Placement will be determined through testing and a review of the student's academic background. Preparatory math courses will be available if the need for them exists. The second-year science sequence must be Chemistry for Printers, SCHG 281, 282, 283 or Physics for Graphic Arts, SPSP 214, 215, 216. However, with departmental approval students can substitute certain other college chemistry or college physics sequences. The third-year science sequence can be chemistry or physics, advanced chemistry, advanced physics, calculus, computers or Photography for Scientists and Engineers, PPHS 201, 202, 203.

Electives
General Studies electives
In general, the program requires that the student take one course per quarter from this area, which includes such subjects as economics, psychology, language, communications, literature and fine arts appreciation. See page 78 for more specific details regarding distribution requirements.

Professional electives
These are usually selected from the printing management and technology electives listed below, but may also include courses from the College of Business or Engineering or other colleges in the Institute for which the subject matter is approved as being relevant to the student’s individual needs.

The following electives supplement required courses. Students elect courses to suit their individual interests and objectives and to meet the credit requirements of the printing program. Selection is subject to prerequisite requirements and availability of courses.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description Catalog from the Admissions Office.
### Printing Degree Program

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<th>First Year</th>
<th>Fall</th>
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<tr>
<td>PPRT-202 Composition Technology</td>
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<td>PPRT-203 Typography II (Cr-3)</td>
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<td>PPRT-204 Relief Press</td>
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<td>PPRT-205 Reproduction Photography</td>
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<td>PPRT-207 Printing Plates</td>
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<td>PPRT-208 Lithographic Press</td>
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<td>PPRT-209 Screen Printing I</td>
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<td>Physical Education Electives</td>
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<td>PPRT-201 Intro. to Technical Writing</td>
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<td>PPRT-302 Personnel Relations I</td>
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<td>PPRT-302 Composition Systems</td>
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<td>PPRT-311 Impression &amp; Finishing</td>
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<td>PPRT-312 Stripping</td>
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<td>PPRT-401 Estimating I</td>
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<td>PPRT-403 Printing Production Management I</td>
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<td>PPRT-410 Introduction to Paper</td>
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<td>General Studies Concentration - Upper Division</td>
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<td>PPRM-590 Senior Seminar</td>
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<td>SMAM-319 Data Analysis</td>
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<tr>
<td>General Studies Senior Seminar &amp; Project</td>
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</table>

Other electives to be selected in consultation with advisors.
Newspaper Production Management

Robert G. Hacker, Coordinator

The printing and publishing industries are undergoing dynamic changes in technology. Within the newspaper field these changes are particularly drastic, completely altering how things are accomplished. Coupled with this are the advances in technology and market penetration of related information-handling industries resulting in increasingly strong competition for newspapers in the areas of reader interest and advertising appeal. These advances have made it imperative for newspapers to alter not only the way in which a newspaper is printed and distributed but the very method by which the information is prepared and processed—perhaps even what shall be produced. The earlier distinctions between editorial, advertising and production blur as production becomes increasingly a function of advertising and editorial preparation, a direction enveloping previously distinct business functions as well. These trends will result in the integration of these departments into a single entity utilizing a computer system to handle, transmit, and process information and control the production and delivery of the resultant product.

This new approach requires new abilities and expertise of the people who would steer this changing industry. Graduates of the newspaper production management program will have to compete with the existing pools of talent and expertise as the functions of production merge with those of other departments.

They must be prepared in both the new technology and in the ability to steer existing manpower and management systems through potentially stormy change to a goal of a useful and profitable position in the marketplace. The revolutionary changes in this field, themselves, point to the need for a “new person” to deal with the technological and managerial problems of such change. This program is intended to fulfill the developing industry need for such people. As the name implies, this program concentrates on those courses which have been found to be most helpful to graduates particularly interested in careers in newspaper production management.

Organization
The BS program in newspaper production management is organized under the management division of the School of Printing. This division offers many courses in the marketing, financial, personnel, and production segments of the industry and are available to the newspaper production management students.

For the past few years many summer internships have also been available for qualified newspaper production management students.

Career opportunities
The graduate with a BS degree in newspaper production management has numerous career choices within the newspaper industry. Many young people find entry positions as production assistants, assistant production managers, assistant business managers and computer specialists. These can lead to positions of production director, director of data processing, operations director, business manager and publisher. All these positions present a distinct challenge in an industry undergoing vast technological change.

Requirements for admission
General requirements for admission are given in the general information section of this bulletin. In addition it is highly desirable that an applicant have a deep interest in newspaper management which can be shown by success in working on a school newspaper, working for a daily or weekly newspaper or by a general interest in the mass media.

High school graduation is a requirement for admission along with course work in elementary algebra, trigonometry, intermediate algebra, physics or chemistry. Preference is given to those applicants who have had additional work in mathematics, physics or chemistry.

Scholarships and financial aid
In addition to the scholarships generally available to School of Printing students, there are a number of scholarships available for students enrolled in the newspaper production management program.

Additional scholarships are available through the National Scholarship Trust Fund of the Educational Council of the Graphic Arts Industry. If information is not available in the local high school, the candidate should write to:

Education Council of the Graphic Arts Industry
4615 Forbes Avenue
Pittsburgh, PA 15213

For information regarding scholarships administered by the Institute, write to the Financial Aid Office.

Program of study
The School of Printing offers a four-year course of study leading to a bachelor of science degree in newspaper production management. Employing about 383,000 people, the newspaper industry continues to be the third largest employing segment of the total manufacturing industry in the country. With 8,200 establishments producing over 1,700 dailies and 7,400 weeklies, the four-year program in production management prepares graduates for entry level positions in these establishments.

The U.S. Industrial Outlook says of the newspaper industry, “The continuing development and implementation of new technologies, successful research efforts and educational programs will support a growth rate ranging between 7 and 8 per cent per year to the mid-1980s.

The program stresses management, engineering, the sciences, computer and printing technology, along with liberal studies.

Graduates of two-year colleges are encouraged to transfer into the four-year program. Qualified transfer students find that many of their two-year college credits are applicable toward the four-year degree.
Cooperative program
The cooperative program in newspaper production management is a flexible and voluntary program available to students who have successfully completed the first two years of the required newspaper production management program, and to transfer students accepted at the junior level. A wide variety of work experiences are available in the newspaper industry where students' practical work experiences can build upon the formal classroom learning. This cooperative program can require up to five years for completing the BS requirements.

Math/Science Sequences
Each student must take nine or ten credits of college mathematics as required by the School of Printing. Placement will be determined through testing and a review of the student's academic background. Preparatory math courses will be available if need for them exists.

The second-year science sequence must be Chemistry for Printers, SCHG 281,282, 283. However, with departmental approval students can substitute certain other college chemistry sequences. The third-year recommended science sequence, to be chosen after consulting with the coordinator of the program, is a series of computer courses.

Electives
General Studies electives
In general, the program requires that the student take one course per quarter from this area which includes subjects such as economics, psychology, language, communications, literature and fine arts appreciation. See page 78 for more specific details regarding distribution requirements.

Professional electives
These are usually selected from the electives listed below, but may also include any other School of Printing course. The following electives supplement required courses. Students elect courses to suit their individual interests and objectives, and to meet the credit requirements of the newspaper program. Selection is subject to prerequisite requirements and availability of courses.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description Catalog from the Admissions Office.

Recommended professional electives
PPRM-516 Marketing in the Graphic Arts
ICSP-215 Programming Language-Fortran
PPRT-323 Newspaper Color
PPRT-324 Newspaper Composition
PPRM-702 Computers in Management
Printing Systems Management
Walter A. Campbell, Coordinator

There is a need in the printing industry for people who have a competency in both printing and industrial engineering.

The main focus for such people is on printing processes so that they can contribute toward optimizing the operating conditions in the manufacturing facilities of the printing and allied industries. They must be able to collect data on plant operation, interpret the data, and make appropriate operational adjustments in line with those data. At the same time, they must be up-to-date with technical changes and new developments in the printing industry.

Working with computers, methods analysis, electronics, mechanics, and many different kinds of people are everyday occurrences. The program in printing systems management integrates coursework in printing technology, printing management, industrial engineering, math/science, and general education to prepare people for the printing industry, who are excellent problem solvers when analyzing printing plant operations.

Employing about 1.1 million people, the commercial printing industry has about 45,000 plants. Although many of these plants are quite small, about 9,000 of them would be of sufficient size to require the services of a graduate of the printing systems management program, and many of these firms have stressed the need for people educated in both printing and industrial engineering.

The U.S. Industrial Outlook says that, “The stability and growth that has existed in the commercial printing industry for more than a decade is expected to continue into the 1980s.” This program is designed to complement the industry’s growth by stressing management, engineering, the sciences, along with computer and printing technology.

This program’s admission standards appeal to students with interests in advanced mathematics, engineering and printing. The program emphasizes a variety of engineering courses which prepare graduates for engineering-type positions in the printing industry. At the same time, this preparation enhances the graduate for a variety of production management positions.

Organization
The BS program in printing systems management is organized under the management division of the School of Printing. This division offers many courses in the marketing, financial, personnel, and production segments of the industry and are available to the printing systems management students.

Career opportunities
The graduate with a BS degree in printing systems management has many career choices within the printing industry. Many find beginning positions as production assistants, assistant production managers, assistant plant engineers, computer engineering specialists, and systems analysts. These can lead to positions of production manager, director of computer technology, plant engineer, and operations manager.

Requirements for admission
General requirements for admission are given in the general information section of this bulletin. In addition, it is highly desirable that the applicant have a great interest in both printing and industrial engineering which can be shown by success in working on a school newspaper or yearbook, by working summers in a printing plant or by general interest in graphic communications and engineering. High school graduation is a requirement along with coursework in elementary algebra, plane geometry, intermediate algebra, trigonometry, physics and chemistry. Preference is given to those who have had additional work in mathematics, physics and chemistry.

Scholarships and financial aid
There are a number of scholarships in the School of Printing which range in value from $100 to full tuition. Some of these may be continued beyond one year depending upon how well the student has performed.

Competitive scholarships are offered through the National Scholarship Trust Fund of the Education Council of the Graphic Arts industry. Anyone interested in applying for one of these scholarships should do so early in the senior year in high school, since the application must be filed in advance of the date set for competitive examinations. If information is not available in the local high school, the candidate should write to:

Education Council of the Graphic Arts Industry
4615 Forbes Avenue
Pittsburgh, Pa. 15213

For information regarding scholarships administered by the Institute, write to or contact the Financial Aid Office, 475-2186.

Program of study
The School of Printing offers a four-year course of study leading to a bachelor of science degree in printing systems management. The program includes a total of 196 quarter credits. Of these there are 35 in printing technology, 29 in printing management, 40 in industrial engineering, 32 in math/science, 54 in general studies and six elective credits.

Cooperative program
The cooperative program in printing systems management is a flexible and voluntary program available to students who have successfully completed the first two years of the required printing systems management program, and to qualified transfer students accepted at the junior level. A wide variety of work experiences is available in the printing industry where students’ practical work experiences can build upon the formal classroom learning. This cooperative program can require up to five years for completing the BS requirements.

Electives
Students may elect professional courses in printing or industrial engineering to complete their two-elective course requirement.

General Studies electives
In general, the program requires that the student take one course per quarter from this area which includes subjects such as economics, psychology, language communications, literature and fine arts appreciation. See page 78 for more specific details regarding distribution requirements.

Principal field of study
For students matriculated in the Printing Systems Management Program, the principal field of study consists of all course work in the School of Printing and the Department of Industrial Engineering. Matriculated students not maintaining a 2.0 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.
# Printing Systems Management

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<td>PPRM-210 Financial Controls I</td>
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<td>PPRM-401 Printing Production Management I</td>
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<td>PPRT-201 Typograph</td>
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<td>PPRT-204 or PPRT-205 or PPRT-209 Relief Press or Gravure or Screen Printing</td>
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<td>PPRT-206 Reproduction Photography</td>
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<td>PPRT-207 Printing Plates</td>
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<td>PPRT-213 Principles of Copy Preparation</td>
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<td>EIEI-511 Applied Statistics II</td>
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<td>General Studies Senior Seminar &amp; Project</td>
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</table>

**NOTE:** Details on General Studies requirements, recommended General Studies courses, and recommended professional electives can be obtained from the program coordinator.

## Printing and Applied Computer Science

**Charles Goodykoontz, Acting Coordinator**

In recent years computers have become widely used in most areas of the graphic arts industry. From typesetting to management information systems and from inking systems to automated bindery operations, computers are revolutionizing the graphic arts industry. Applications of computers in the graphic arts have created a need for personnel with an in-depth knowledge of both printing and computer science. Recognizing this need, RIT’s School of Printing in cooperation with the School of Computer Science and Technology established the printing and applied computer science program for students who want to combine both fields.

### Career Opportunities

Graduates with a BS degree in printing and applied computer science have many career possibilities open to them. These include systems analysis, production control, engineering liaison, customer engineering, customer training, marketing support, purchasing, process engineering and production design, as well as general staff positions. These positions can lead to management responsibilities as production manager, director of computer technology and operations manager. These are all “stepping stones” to higher management positions.

### Requirements for Admission

Requirements for admission are given in the general information section of this bulletin. In addition, it is highly desirable that the applicant have a great interest in printing and computers which can be shown by success in working on a school newspaper or yearbook, by working summers in a printing plant or by general interest in graphic communications as well as in computers and their applications. High school graduation is a requirement along with coursework in elementary algebra, plane geometry, intermediate algebra, trigonometry, physics and chemistry. Preference is given to those who have had additional work in physics, calculus and computer usage.
Scholarships and financial aid

There are a number of scholarships in the School of Printing which range in value from $100 to full tuition. Some of these may be continued beyond one year depending upon how well the student has performed.

Competitive scholarships are offered through the National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry. Anyone interested in applying for one of these scholarships should do so early in the senior year in high school, since the application must be filed in advance of the date set for competitive examinations. If information is not available in the local high school, the candidate should write to:

Education Council of the Graphic Arts Industry
4615 Forbes Avenue
Pittsburgh, PA 15213

For more information regarding scholarships administered by the Institute, write to or contact the Financial Aid Office, 475-2186.

Program of study

The School of Printing offers a four-year course leading to a bachelor of science degree in printing and applied computer science.

Approximately 20 percent of the course work is in computer science, 30 percent in printing technology and management, 25 percent in math/science, and 25 percent in general studies.

A survey of employers in the graphic arts industry indicates that there is a strong need for trained printing/computer specialists. As more and more graphic arts firms adopt computer technology, the need will grow for personnel who can develop and utilize equipment, interpret the graphic arts industry to the computer industry, apply computers to printing processes, manage computer systems, and work with vendors.

The cooperative plan of study is available in the School of Printing for students choosing this program. Graduates of two-year colleges are encouraged to transfer into the four-year program. Transfer students find that many of their two-year college credits are applicable toward the four-year degree.

Organization

The BS program in printing and applied computer science is organized under the management division of the School of Printing.

Printing and Applied Computer Science Program

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Fall</th>
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<th>Spring</th>
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<td>Printing Production Management I</td>
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<td>Relief Press</td>
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<td>PPRT-313</td>
<td>Principles of Copy Preparation</td>
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<td>ICSP-208</td>
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<td>*ICSS-565</td>
<td>Computer Systems Selection</td>
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<td>*ICSS-721</td>
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*Other approved upper level courses may be substituted, giving depth rather than breadth, to meet individual needs, with approval of the program curriculum management team.

NOTE: Details on General Studies requirements, recommended General Studies courses, and recommended professional electives can be obtained from the printing and applied computer science program coordinator.

Electives

Students may elect professional courses in printing or computer science and technology to complete their elective course requirement.

General Studies electives

In general, the program requires that the student take one course each quarter from this area which includes such subjects as economics, psychology, language, communications, literature and fine arts appreciation. See page 78 for more specific details regarding the distribution of courses.

Principal field of study

For students matriculated in the Printing and Applied Computer Science program the principal field of study consists of all course work in the School of Printing and the School of Computer Science and Technology.

Matriculated students not maintaining a 2.0 cumulative grade point average in their principal field of study are subject to academic probation or suspension according to Institute policy.
The modern trend in undergraduate education is to expose the student to the methods of undertaking a research project. This is as important to a science education as many of the lecture-type courses students are required to take as part of their major programs.

The College of Science is an ideal size to provide quality undergraduate education. It has 60 faculty members in the sciences and mathematics, most of whom hold the Ph.D. degree. This size provides faculty with a variety of expertise in sciences and mathematics, so a student can find a faculty member with whom to interact regarding a particular interest.

When the college moved into the new science building in 1968, it was very fortunate that RIT received about a million dollars in federal funds to permit the purchase of a wide variety of scientific instrumentation. We are as well-equipped as some universities which stress graduate education, but in our case this equipment is used by the undergraduates.

Our faculty realizes its responsibility to maintain up-to-date curricula so that our graduates will fit into the current needs of industry as well as meet the requirements of graduate schools. This challenge includes not only modern trends in science, but such things as the use of computers and sophisticated, modern lab equipment.

Many high school students don’t know which of the sciences they wish to major in. We encourage such students to come to RIT as undeclared science majors. Programs can be designed which will enable them to postpone a definite commitment to a particular major in science for one or sometimes two years without any loss of time toward a degree. This option has been attractive to quite a few high school students.

The best way to evaluate college programs is the success of the graduates. Our graduates have been very successful in both industry and graduate schools. We have found, for example, that they are doing exceedingly well in passing Ph.D. qualifying exams early in their graduate programs. In terms of industrial success, employers report that our graduates not only have good training for industry, but because of their work experience, immediately fit into the industrial way of life with a high degree of initiative and seriousness of purpose.

During the 19 years of its history as an integral academic unit of RIT, the College of Science has developed one associate’s degree program in chemical technology, four bachelor’s degree programs in biomedical computing, computational mathematics, medical technology, nuclear medicine technology, and two master’s programs in chemistry and clinical chemistry.

In an effort to increase the diversity of its programs and hence enhance the educational alternatives for its students, the College of Science has entered into an interinstitutional dual degree program with the Massachusetts College of Pharmacy allowing students to pursue studies in biology/pharmacy or chemistry/ pharmacy.

The programs
The College of Science has undergraduate programs in biology, chemistry, mathematics, computational mathematics, physics, chemical technology, medical technology, nuclear medicine technology, pharmacy, biomedical computing, and pre­medicine and pre-dentistry.

Choice of majors
A student may enroll in the College of Science as a science major without designating a specific major. In consultation with an advisor, a program will be designed to meet the student’s individual needs and goals. The program can be flexible and cover a number of introductory college level courses in science.

Prior to the end of the first year, the student should decide upon a specific major and may then enroll as a candidate for a degree in one of the departments: biology, chemistry, mathematics, physics, or clinical sciences.

Declared major
The student who has definitely decided upon a specific major field will indicate a choice when applying, and may therefore be enrolled as a candidate for a degree in that department upon admittance by the Institute. A program will be designed to prepare the student for competency in his or her chosen profession.

The programs in the College of Science are sufficiently flexible to
allow the student to obtain an in-depth background in a discipline other than the chosen major. A wide selection of elective courses in such areas as business, chemistry, photography, computer science, physics, mathematics, and biology, makes it possible to take a series of courses which could result in an elective concentration (i.e., minor) in an area related but not required for the major.

To illustrate, the following is a typical distribution of courses for the first year as a science major.

Each of the departments has majors programs operating on a five-year cooperative work/study plan, and the Chemistry Department has a three-year cooperative program in chemical technology and a program leading to the master of science degree.

Graduates of the five-year programs in the College of Science receive a bachelor of science degree. These graduates qualify for professional work in processing and laboratory operations, research and experimental work, or supervision of technical projects, as well as for graduate education leading to the master of science or doctor of philosophy degrees.

The transfer plan
Students with associate's degrees in a comparable program from other educational institutions normally can expect to transfer at the junior year level. Transfer credit is granted for those studies which parallel Institute courses in the curriculum for which admission is sought.

Transfer students applying for a program at RIT, similar to their previous college study, are expected to present an accumulative average of “C” or above. Students making significant program changes will be evaluated on the probability of their success in the new program, with the grades earned in previous study only a part of the criteria.

It is also RIT policy to grant credit by examination in lieu of course credits, for subjects that parallel the objectives and content of courses for which advanced credit is being sought. Contact the director of admissions for policy and procedures.

The cooperative plan
The school year is divided into four 11-week quarters, Fall, Winter, Spring, and Summer. Students in the biology, mathematics, biomedical computing and physics programs attend classes at the Institute during the fall, winter, and spring for the first and second year. At the beginning of their third year, employment arrangements are made for students in the five-year cooperative programs. Students are assigned to A and B Sections for the last three years of attendance.

Students in Section A attend classes during the Fall Quarter while those in section B work on their cooperative jobs. The two sections interchange at the beginning of the Winter Quarter, when students in Section B attend classes and those in Section A work in industry. This interchange of the work/study periods continues throughout the remainder of the third, fourth and fifth years. The work/study periods continue throughout the remainder of the third, fourth and fifth years. The work/study section to which the student is assigned is designated by the coordinator of employment.

The accompanying diagrams illustrate the cooperative schedule as it applies to students in the five-year programs. Students in the five-year chemistry program participate in the co-op program as described above except their co-op experience starts at the beginning of their second year. Chemistry majors thus spend one year on campus and then spend alternate quarters in full-time study and full-time co-op employment for the next four years.

Chemical technology
Candidates enrolled in the chemical technology program spend their initial quarter in classes at the Institute. At the completion of the first quarter, the class is divided into two sections and each section alternates between academic and industrial quarters for the duration of the three-year program.

The accompanying diagram illustrates the cooperative schedule for the chemical technology program.
Admission at a Glance: College of Science Programs

General Information on RIT** admission requirements, procedures and services is included in detail on pages 16-17 of this Bulletin.

Undergraduate programs are offered in the areas listed below. The programs offered are flexible enough so that students can take courses to meet their individual needs and, at the same time, obtain a quality career-oriented education. Students can take electives in such courses as computer science, photography, or business.

The co-op plan of this college is ideal for students eager to increase their chances for employment after graduation.

Biology—Prepares students for graduate study in biological disciplines and medical arts. Also for occupations in medical research labs, food and agriculturally related industries, pharmaceuticals and environmental organizations. Degrees granted: AS-2 year; BS-4 or 5 year, depending on co-op.

Biological/Chemistry/Pharmacy—A five-year inter-institutional dual degree program in affiliation with the Massachusetts College of Pharmacy. Prepares students with a thorough education in either biology or chemistry and pharmacy. Graduate pharmacists can choose from a variety of career areas including community, clinical, sales, teaching or marketing. The program also is excellent preparation for entrance to graduate programs in pharmacology, dentistry and medicine. Degrees granted: AS-2 year; Dual BS-5 years.

Biomedical Computing—Graduates are prepared to assume positions on the staffs of medical and/or industrial laboratories or hospital computer departments, or to work with physicians and other health professionals in a clinical environment and on medical research projects. Degree granted: BS-5 year.*

Chemistry—Graduates qualify for higher level positions in several fields of chemistry including professional industrial work in processing and laboratory operational research and experimental work, supervision of technical projects, managerial positions and graduate study. Degree granted: AS-3 year; BS-5 year.

Chemical Technology—A three-year Co-op curriculum that leads to direct industrial employment. Emphasis is on the qualitative and quantitative analysis skills and knowledge to perform industrial laboratory tasks. Degree granted: AAS.

Mathematics, Computational Mathematics—Graduates qualify for positions in industry and business as well as graduate study. A combination of mathematics courses and electives in math-related areas and/or computer science greatly enhances employment opportunities. Degrees granted: AS-2 year, BS-4 or 5 year, depending on Co-op.

Medical Technology—Prepares students for employment in hospital, industrial-medical, or research laboratories. Students spend three years at RIT and one year in an approved hospital internship. Degree granted: BS-4 year.*

Nuclear Medicine Technology—Graduates assist physicians in procedures that require use of radioactive materials. Graduates prepare radioactive dosage, collect and prepare specimens, verify patient records, carry out laboratory studies, and present results for interpretation by physicians. Three years are spent at RIT and one year in an approved hospital internship. Degree granted: BS-4 year.*

Physics—Graduates find employment opportunities with industrial, academic and government agencies, or pursue graduate study in such areas as biophysics, atmospheric science, applied science or industrial business administration. Degree granted: AS-2 year; BS-5 year.

Pre-Medicine, Dentistry, Etc.—Students interested in pursuing a career in medicine, dentistry, optometric, osteopathic medicine, veterinary science or podiatry, major in any College of Science or Institute program; no formal program exists specifically for preparation for these careers. The faculty Pre-professional Advisory Committee counsels and assists RIT students in making application to these professional schools. Degrees are awarded in the programs chosen by the students.

*Students in these programs receive an AS in General Science upon the successful completion of the first two years.

Cooperative schedule for chemical technology

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<tr>
<th>Year</th>
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<th>Winter</th>
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<th>Summer</th>
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<td>RIT</td>
<td>Work</td>
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<td>B RIT</td>
<td>Work</td>
<td>RIT</td>
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<td>2nd year</td>
<td>A Work</td>
<td>RIT</td>
<td>Work</td>
<td>RIT</td>
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<td></td>
<td>B RIT</td>
<td>Work</td>
<td>RIT</td>
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</tr>
<tr>
<td>3rd year</td>
<td>A Work</td>
<td>RIT</td>
<td>Work</td>
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<td></td>
<td>B RIT</td>
<td>Work</td>
<td>RIT</td>
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Cooperative schedule for five-year program in biology, mathematics, physics and biomedical computing

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<th>Spring</th>
<th>Summer</th>
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<td>RIT</td>
<td>RIT</td>
<td>Vacation</td>
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<td>3rd, 4th yrs.</td>
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Cooperative schedule for five-year chemistry program

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<th>Spring</th>
<th>Summer</th>
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<td>4th yrs.</td>
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<td>RIT</td>
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### Freshman Admission Requirements

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<tr>
<th>Biology, Biology/ pharmacy</th>
<th>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</th>
<th>Physics or Chemistry; additional mathematics, C.E.E.B. Biology Achievement Test</th>
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<tbody>
<tr>
<td>Biomedical Computing</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>Physics; Chemistry; Additional Mathematics Computer Science</td>
</tr>
<tr>
<td>Chemistry, Chemistry/ pharmacy</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry</td>
<td>Physics; C.E.E.B. Chemistry Achievement Test</td>
</tr>
<tr>
<td>chemical technology</td>
<td>Elem. Algebra; 1 year any science</td>
<td>Additional mathematics and science</td>
</tr>
<tr>
<td>mathematics, computational mathematics</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry or Physics</td>
<td>Physics or Chemistry; additional mathematics</td>
</tr>
<tr>
<td>medical technology</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>Physics or Chemistry</td>
</tr>
<tr>
<td>nuclear medicine technology</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; 2 years lab science</td>
<td>Additional mathematics and science</td>
</tr>
<tr>
<td>physics</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry or Physics</td>
<td>Physics or Chemistry; additional mathematics, C.E.E.B. Physics Achievement Test</td>
</tr>
<tr>
<td>undeclared science option</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Lab science</td>
<td>Physics, Chemistry; Biology or additional mathematics</td>
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### Transfer Admission with junior standing

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<th>Biology, Biology/ pharmacy</th>
<th>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</th>
<th>Liberal arts major with a math/biology option or equivalent. Changes from other science major or engineering science can be arranged.</th>
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</thead>
<tbody>
<tr>
<td>Biomedical Computing</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>Liberal arts major in science, mathematics, computer technology or engineering. Changes from other allied health majors can be arranged</td>
</tr>
<tr>
<td>Chemistry, Chemistry/ pharmacy</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry</td>
<td>Liberal arts major with a math/chemistry option or equivalent. Changes from other science majors or engineering science can be arranged.</td>
</tr>
<tr>
<td>chemical technology</td>
<td>Elem. Algebra; 1 year any science</td>
<td>Program terminal at AAS degree-no junior year courses.</td>
</tr>
<tr>
<td>mathematics, computational mathematics</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry or Physics</td>
<td>Liberal arts major with a math/science option. Changes from engineering, science or other math-oriented programs can be arranged.</td>
</tr>
<tr>
<td>medical technology</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Biology</td>
<td>Medical laboratory technology, other allied health programs or equivalent programs.</td>
</tr>
<tr>
<td>nuclear medicine technology</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; 2 years lab science</td>
<td>Biology, medical technology, other allied health programs or equivalent programs.</td>
</tr>
<tr>
<td>physics</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Chemistry or Physics</td>
<td>Liberal arts major with a math/physics option or equivalent. Changes from other science majors or engineering science can be arranged.</td>
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<tr>
<td>undeclared science option</td>
<td>Elem. Algebra; Plane Geometry; Inter. Algebra; Trigonometry; Lab science</td>
<td>Not applicable</td>
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</table>
Biology Program

Paul A. Haefner, Jr., Head

The Department of Biology offers programs leading to the AS and BS degrees in Biology. The program of the Department of Biology prepares students for the pursuit of graduate degrees in a variety of biological disciplines as well as the medical arts. Students terminating their education at the BS level find rewarding positions in occupations related to the life sciences, including biomedical research laboratories, food and agriculturally related industries, the pharmaceutical industry and environmental organizations.

Requirements for the AS degree in biology
The student must meet the minimum graduation requirements of the Institute as described on page 19 and in addition must complete the requirements contained in the particular program listed below or its equivalent.

The program must include a minimum of six quarter courses in biology, six quarter courses in non-biological sciences and six quarter courses in general studies.

Requirements for the BS degree in biology
The student must meet the minimum graduation requirements of the Institute as described on page 19 in this bulletin. In addition, the student must complete a minimum of 60 quarter credit hours in biology. A required core of courses comprises 43 quarter credit hours in biology (General Biology, General Ecology, Botany, Introductory Microbiology, Genetics, Biological Laboratory Techniques, Biology Seminar), one quarter course in Anatomy, one quarter course in Physiology. The remaining 17 hours are selected from biology electives.

Additional requirements for the BS degree in biology include a minimum of six courses in chemistry including at least two in calculus, three in physics, three in mathematics including at least two in calculus.

established to meet particular needs, interests, and goals. Because these tracks are designed around the common core curriculum, the student has the added advantage of being prepared for alternate career goals, should the situation arise. The following tracks are available at RIT:

1. Post-graduate. A student achieving the BS degree in biology at RIT will have the essential prerequisites for entry into most universities offering advanced degrees in biological sciences.

2. Pre-professional. Students interested in careers in medicine, optometry, dentistry, and veterinary science can satisfy the requirements for admission to professional schools by majoring in biology at RIT.

3. Biological Research. This program, which includes a variety of courses such as pharmacology, toxicology, and animal surgery, leads to employment in laboratories engaged in pure and applied biological research or in clinical and medical research.

4. Microbiology. This is similar to the biological research program, but

emphasizes microbiological aspects that lead to careers in clinical laboratories, in food and drug quality control and in wastewater and sewage treatment facilities.

5. Environmental Science. This track prepares the student for careers in ecological research and management in areas such as conservation, field biology and environmental toxicology. Students may pursue terrestrial, freshwater and marine science options.

6. Pharmacy. An inter-institutional program between RIT and the Massachusetts College of Pharmacy educates the student for the practice of pharmacy. Three years are spent at RIT as a biology major, the final two academic years are in residence at MCP. Baccalaureate degrees are awarded from both institutions.

7. EM Technician. The Electron Microscopy Society of America (EMSA) is the national organization that certifies individuals as EM technicians. Such individuals are in high demand to work in EM laboratories in hospitals, industries and research organizations. The necessary coursework and training

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<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
<th>Fourth Year</th>
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<tr>
<td><strong>SBIG-201, 202, 203 General Biology</strong></td>
<td><strong>SBIO-204, 205, 206 General Biology Laboratory</strong></td>
<td><strong>SBIO-207, 208, 209 General Biology Seminar</strong></td>
<td><strong>SBIG-210, 211, 212 General Biology Laboratory</strong></td>
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<td><strong>SCHG-216, 217 General Analytical Chemistry Lab.</strong></td>
<td><strong>SCHG-226, 227, 228 General Analytical Chemistry</strong></td>
<td><strong>SCHG-237, 238, 239 General Analytical Chemistry</strong></td>
<td><strong>SCHG-247, 248, 249 General Analytical Chemistry</strong></td>
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<td><strong>SMAM-204, 205, 206 College Algebra, Intro to Calculus</strong></td>
<td><strong>SMAM-214, 215, 216 College Algebra Lab.</strong></td>
<td><strong>SMAM-224, 225, 226 College Algebra Lab.</strong></td>
<td><strong>SMAM-234, 235, 236 College Algebra Lab.</strong></td>
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<td><strong>General Studies Electives-Lower Division</strong></td>
<td><strong>General Studies Electives-Lower Division</strong></td>
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<td><strong>SBIO-304 Botany or SBIO-305 Physiology &amp; Anatomy</strong></td>
<td><strong>SBIO-306 Comparative Anatomy or SBIO-306, Physiology</strong></td>
<td><strong>SBIO-401, 402, 403 General Biology</strong></td>
<td><strong>SBIO-404, 405, 406 General Biology</strong></td>
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<td><strong>SCHO-231, 232, 233 Organic Chemistry</strong></td>
<td><strong>SPSP-211, 212, 213 College Physics</strong></td>
<td><strong>SPSP-214, 215, 216 College Physics</strong></td>
<td><strong>SPSP-217, 218, 219 College Physics</strong></td>
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<td><strong>SBIC-405, 406, 407 Introduction to Microbiology</strong></td>
<td><strong>SBIC-408, 409, 410 Introduction to Microbiology</strong></td>
<td><strong>SBIC-411, 412, 413 Introduction to Microbiology</strong></td>
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<td><strong>SBIO-305, 306, 307 Comparative Anatomy</strong></td>
<td><strong>SBIO-308, 309, 310 Comparative Anatomy</strong></td>
<td><strong>SBIO-311, 312, 313 Comparative Anatomy</strong></td>
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<td><strong>SBIO-306 Comparative Anatomy or SBIO-306, Physiology</strong></td>
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</table>

§ See Pg. 28 for Policy on Physical Education.
*See Pg. 78 for General Studies requirements.
*A minimum of 60 quarter credit hours of biology is required for the BS degree. The required core of courses (SBIG-201, 202, 203, 205, 206, 207, SBIG-550, SBIO-404, SBIO-340, SBIO-321, SBIO-104; SPSP-342; one quarter course in anatomy; one quarter course in physiology; SBIG-204) comprise 42 hours. The remaining 17 hours is selected from biology electives. Other requirements include a minimum of six courses in chemistry (SCHG-215, 216, 217; SCHO-231, 232, 233), three in physics (SPSP-211, 212, 213 or SPSP-211, 212, 213 or SPSP-311, 312, 313) and three in mathematics including at least two in calculus.
to enable a student to receive certification from EMSA is provided by the biology department. It is possible to receive both a baccalaureate degree and certification in four years (or five years, if the student participates in co-op).

8. Medical Technology. It is possible for a student to complete a BS degree program in biology in four years and complete internship and examination requirements for medical technology certification in the fifth year. The arrangement provides the student with a variety of options: a career as a medical technologist or a research technician, or entry into graduate or professional training.

Minor Concentrations
Minor concentrations in other fields are also possible for the biology major through planned use of electives. Chemistry, physics, computer science, mathematics, engineering, engineering technology, management, and photography are potential options which enhance the biology degree.

Pharmacy/Biology, Chemistry Double Program For Pharmacists

Paul A. Haefer, Jr
Earl Krakower - Co-Directors

RIT has joined forces with the largest and second oldest college of pharmacy in the country, Massachusetts College of Pharmacy, to offer a double degree program in pharmacy. Graduates of the five-year program earn a bachelor of science degree in pharmacy from Massachusetts College of Pharmacy and a bachelor of science degree in either biology or chemistry from RIT.

Pharmacists work in community or chain store pharmacies, hospitals or other health care institutions, in sales or product development for the pharmaceutical industry, and for cosmetic firms, government agencies, insurance companies, and social service agencies. Pharmacists must have a comprehensive knowledge of drugs, including their compositions, chemical and physical properties, and pharmacological activities in the patient, and must be familiar with tests for drug purity and strength. They also serve as a prime source of drug and health information for patients and other health professionals. Additionally, in many health care settings pharmacists are becoming more involved with the clinical use of drugs and drug therapy.

RIT’s program is designed to give students a thorough background in the basic sciences as well as exposure to general studies; professional training in pharmacy; and clinical experience in pharmacy in a health care setting. Students in the program spend three years at RIT (specializing in either biology or chemistry). Their fourth and fifth years are spent studying pharmacy at the Massachusetts College of Pharmacy in Boston. A summer internship concludes the program.

Students must possess a cumulative grade point average of at least 3.0 to be eligible for admission to Massachusetts College of Pharmacy. Those who are not selected or who do not maintain the academic average necessary for transferring may remain at RIT and complete their degree program.

Requirements for the AS and BS degrees in biology or chemistry and pharmacy

The student must meet the minimum requirements of the Institute as described on page 19 and in addition must complete the requirements contained in one of the particular options listed on these pages or its equivalent as determined and approved by the departments. The bachelor of science degree in pharmacy from the Massachusetts College of Pharmacy requires five years of study, a summer internship and 260 hours of credit for a degree.

Accreditation

The Massachusetts College of Pharmacy is accredited by the New England Association of Schools and Colleges and The American Council, on Pharmaceutical Education.

Course descriptions

For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

Transfer to Massachusetts College of Pharmacy Phase

Biology or chemistry major students accepted for transfer admission into Massachusetts College of Pharmacy will enter the third year (their fourth year) of the pharmacy program. The curriculum of study includes courses in medical terminology, pharmacetics, public health, virology, pharmacy orientation, pathology, medicinal chemistry, biopharmaceutics, pharmacy law, dispensing, and general education electives. The pharmacy program is concluded with a clinical pharmacy internship in the Boston area. MCP will grant the bachelor of science degree in pharmacy.

The Institute will accept 45 transfer credits from MCP toward the bachelor’s of science degrees in either biology or chemistry from RIT depending on the option followed during the first three years of study at RIT. While enrolled at MCP the student must utilize 15 of the minimum hours of MCP electives to satisfy RIT’s general studies requirement.
## Pharmacy Program (Biology option)

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<th>First Year</th>
<th>Second Year</th>
<th>Third Year</th>
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<td>Fall</td>
<td>Winter</td>
<td>Spring</td>
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<tr>
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<td>Quarter Credit Hours</td>
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<td>SBIG-201, 202, 203 General Biology</td>
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<td>SBIG-205, 206, 207 General Biology Lab</td>
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<td>SCHG-215, 216, 217 General &amp; Analytical Chemistry</td>
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<td>SMAM-251, 252, 253 Calculus</td>
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<td>SMAM-204 College Algebra</td>
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<td>SMAM-214, 215 Intro. Calculus</td>
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<td>SBID-340 General Ecology</td>
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<td>SBIO-305, 306 Physiology &amp; Anatomy</td>
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<td>SCHO-231, 232, 233 Organic Chemistry</td>
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‡ See Pg. 28 for Policy on Physical Education.
* See Pg. 78 for General Studies requirements.

## Pharmacy Program (Chemistry option)

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‡ See Pg. 28 for Policy on Physical Education.
* see Pg. 78 for General Studies requirements.
# Chemistry and Chemical Technology

Earl Krakower, Head

The Department of Chemistry offers programs leading to the AAS degree in chemical technology, the AS and BS degrees in chemistry, the BS degree in chemistry (biochemistry option), and the MS degree in chemistry.

## Chemical Technology

The three-year terminal program in chemical technology leads to the AAS degree and is designed to integrate the component skills, knowledge, and attributes necessary for the performance of industrial laboratory tasks. Emphasis is placed on laboratory experience centered around qualitative and quantitative analysis. Advanced laboratory work is designed to teach the student special laboratory techniques and the operation of modern instrumentation. Graduates of the chemical technology program are highly sought after as technical support personnel by industrial chemical laboratories.

## Chemistry

The five-year cooperative program in chemistry leads to the bachelor of science degree and has been approved by the Committee on Professional Training of the American Chemical Society. The program prepares graduates for higher level positions in the several fields of chemistry including professional industrial work in processing and laboratory operations, research and experimental work, supervision of technical projects, and managerial positions. A substantial fraction of graduates continue their education for advanced degrees in chemistry or pursue careers in pharmacy, medicine and dentistry. The program provides students with the option of planning an elective concentration in complementary fields such as photonics, business, graphic arts, computer science, physics or mathematics. Students may also elect to complete the BS degree requirements in a traditional (non-cooperative) four-year program.

## Biochemistry Option

The biochemistry option of the chemistry program provides students with the opportunity to integrate substantial biology and biochemistry experience into the BS chemistry program. Graduates of this option will qualify for professional study in medicine and dentistry, as well as graduate work in Ph.D. programs in biochemistry and molecular biology, and rewarding careers in the pharmaceutical and biochemical industries.

### Requirements for the AS and BS degrees in Chemistry and the AAS degree in Chemical Technology

The student must meet the minimum graduation requirements of the Institute as described on page 19 and in addition must complete the requirements contained in the particular program listed herein or its equivalent as determined and approved by the Chemistry Department.

As part of the BS requirements, students must pass a series of comprehensive chemistry exams that are offered during the senior year. To meet the requirements leading to the BS degree approved by the Committee on Professional Training of the American Chemical Society, the student must take specifically designated courses in chemistry and related sciences and must complete a minimum of 186 quarter hours and 372 quality points.

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### Chemical Technology

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<td>SCHA-312</td>
<td>Anal. Chem. Separation Techniques</td>
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<td>SCHA-319</td>
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<td>Intro, to Physical Chemistry</td>
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<td>SCHP-441</td>
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<td>SCHB-703</td>
<td>Biochemistry-Metabolism</td>
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<td>SCHB-704</td>
<td>Biochemistry-Molecular Biology</td>
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<td>SCHP-402</td>
<td>Introduction to Research</td>
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‡See Pg 28 for Policy on Physical Education
•See Pg. 78 for General Studies requirements.
Mathematics program

George T. Georgantas, Head

The Department of Mathematics offers two types of degree programs, one in Mathematics and one in Computational Mathematics. Students successfully completing the first two years of either program are eligible to receive the Associate in Science in Mathematics degree.

The BS degree usually involves a five-year curriculum and incorporates industrial cooperative employment during the third, fourth and fifth years. However, the Department of Mathematics will design a special curriculum for students who do not desire to participate in the system of cooperative employment, in which case the student can finish either program in four years.

The program leading to the BS in Mathematics is an applied mathematics program requiring a minor concentration in one math-related field (e.g., physics, chemistry, engineering, economics, computer science, etc.). There is an increasing need for mathematicians with backgrounds in such areas. The program leading to the BS in Computational Mathematics was specially designed several years ago to meet the needs of employers desiring mathematicians with strong computer science backgrounds. This program emphasizes topics in mathematics which lend themselves to computer analysis, and involves a substantial concentration of computer science courses.

Graduates of either program qualify for a variety of positions in research corporations, industry, governmental agencies and other business concerns, as well as for graduate studies leading to an MA, MS, or Ph.D. degree, not only in mathematics but in a number of other fields as well.

Requirements for the AS and BS degrees:
The student must meet the minimum requirements of the Institute as described on page 19; in addition he/she must complete the requirements contained in one of the particular programs listed below, or its equivalent, as determined and approved by the Mathematics Department. In conjunction with a faculty advisor, individual student programs will be established to meet particular needs, interests, and goals.

Course Descriptions:
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

NPTE: A detailed analysis of the above program is contained in a booklet prepared by the Department of Mathematics and is available upon request.
*See Pg. 78 for General Studies requirements.
‡See Mathematics Department for approved mathematics electives.
+iCSP 202-ICSP 220 is listed as a minimal requirement. If a student has a good background, the optimal sequence iCSP 208-215 is recommended instead.
## Computational Mathematics

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
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<tr>
<td>SMAM-210, 211 Freshman Seminar</td>
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<td>SMAM-251, 252, 253 Calculus</td>
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<td>SMAM-265 Foundations of Discrete Mathematics</td>
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<tr>
<td>*** CSS-202 Intro, to Computer Science</td>
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<td>ICSP-208 Intro, to Programming PASCAL</td>
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<td>ICSP-215 Programming Language FORTRAN</td>
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<td>***Science..................................................................................</td>
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<tr>
<td>SMAM-305 Calculus</td>
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<td>SMAM-306 Differential Equations</td>
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<td>SMAM-351, 352 Intro, to Probability and Statistics</td>
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<td>SMAM-410 Advanced Calculus</td>
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<td>SMAM-431 Matrix Algebra</td>
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<td>ICSP-305 Assembly Language Programming</td>
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<td>ICSP-320 Data Structure Analysis</td>
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<td><strong>Third Year</strong></td>
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<td>SMAM-432 Linear Algebra</td>
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<td>SMAM-385 Combinatorial Mathematics</td>
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<td>SMAM-391 Math Modeling</td>
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<td>ICSP-315 Digital Computer Organization</td>
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<td><strong>Fourth &amp; Fifth Year</strong></td>
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<td>SMAM-511,512 Numerical Analysis</td>
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<td>SMAM-531, 532 Abstract Algebra</td>
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</table>

**NOTE:** A detailed analysis of the above program is contained in a brochure prepared by the Department of Mathematics and is available upon request.

**CSS-202, 208, 215 is listed as a minimal requirement. If a student has a strong background, the optional sequence ICSS-208, 210, 215, is recommended instead.

**Science sequence begins in the winter quarter of the first year, the final quarter of the sequence should be taken in this fall quarter instead of General Studies.**

One of the following introductory sequences, including the associated laboratory.

- SBIG-201, 202, 203 General Biology, SBIG-205, 206, 207 General Biology Lab
- SCHG-230 Intro to Organic Chemistry, SCHG-207 Chemical Principles
- SPSP-205, 206, 207 General Physics Lab

‡See Pg. 28 for Policy on Physical Education.

*See Pg. 78 for General Studies requirements.
The Physics Department offers programs leading to the AS and BS degrees in physics.

The BS degree in physics is a five-year program with a cooperative work experience. Graduates with this degree find employment opportunities with industrial, academic, and government agencies, or continue their education in MS or Ph.D. programs in physics or physics-related areas, such as biophysics, atmospheric science, or industrial business administration.

Requirements for the AS and BS degrees in physics
The student must meet the minimum graduation requirements of the Institute as described on page 19 and in addition must complete the requirements contained in the particular program listed below or its equivalent as determined and approved by the Physics Department. In conjunction with a faculty advisor, individual student programs will be established to meet particular needs, interests, and goals. A planned elective concentration in another field such as biology, chemistry, mathematics, computer science, business, or photo science is possible.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.
Biomedical Computing

Edward B. Stockham, Acting Program Director

RIT’s biomedical computing bachelor of science degree curriculum is one of only a few similar programs in the United States. It was developed by the College of Science and the School of Computer Science and Technology because of the increasing use of computers in biomedical research and the health industry. Students receive training in the basic sciences and computer science with emphasis on clinical and laboratory applications.

Students are strongly encouraged to obtain experiential biomedical computing education by participation in the cooperative education program (co-op). The program spans five years to allow students to alternate quarters in school with quarters in paid employment during their last three years. Co-op allows students the opportunity to practice new skills in real-life situations and to test their chosen fields before making a lifelong commitment. The experiences they acquire not only make their education more relevant, but also make them more valuable to prospective employers.

Students consult with faculty advisors in order to tailor their academic program to individual career goals. Upper level electives are used to prepare graduates for specialized employment opportunities within biomedical computing, for graduate school in the sciences or computer science, or for post-graduate professional school.

Requirements for the BS in biomedical computing
The student must meet the minimum graduation requirements of the Institute as described on page 19 and in addition must complete the requirements contained in the particular program or its equivalent as determined and approved by the Department of Clinical Sciences. Transfer students usually will be required to take 100 quarter credit hours, depending on the program they completed at their previous school. Specific requirements will be determined for each transfer student by the department.

Course Descriptions
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.
Medical Technology Program

James C. Aumer, Program Director

The major function of the medical technology program, which leads to the bachelor of science degree is the preparation of students for employment in hospital laboratories, industrial-medical or research laboratories, and pharmaceutical companies. This program has been accepted by the Board of Registry of Medical Technologists of the American Society of Clinical Pathologists as meeting all requirements prior to the Registry examination.

Students enrolled in the medical technology program attend classes at RIT during the Fall, Winter and Spring Quarters for three years. In the Fall Quarter of their third year they apply for clinical training to hospital schools of medical technology that are approved by the American Society of Clinical Pathologists. They will then spend their fourth academic year at the hospital that accepts them as an intern in medical technology. At the present time a new integrated training year is being developed by the medical technology faculty. This new development will provide a second track for completion of a BS degree in medical technology. The students in this track will spend one half of their fourth year at RIT training in clinical methods of analyses and they will spend the last half of this year in hospital laboratories for observation, instruction, and practical training.

The medical technology program is affiliated with Rochester General Hospital, St. Mary’s Hospital in Rochester, and Buffalo’s Millard Fillmore Hospital. Students may, however, seek admission to any approved hospital for their internship.

Medical Technology (Typical Course Schedule)

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Fall</th>
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<th>Spring</th>
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<td>SBIG-201, 202, 203</td>
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<td>SBIG-205, 206, 207</td>
<td>General Biology Lab</td>
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<td>SCHG-215, 216, 217</td>
<td>General Analytical Chemistry</td>
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<td>SCHG-225, 226, 227</td>
<td>General Analytical Chemistry Lab</td>
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<td>SMAM-221, 222, 223</td>
<td>College Math</td>
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First Year

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<td>SBIO-305, 306</td>
<td>Physiology and Anatomy</td>
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<td>SCHG-231, 232</td>
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<td>SPSP-211, 212, 213</td>
<td>College Physics &amp; Electronics</td>
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<td>SPSP-211, 212, 213</td>
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<td>ICSP-205</td>
<td>Computer Techniques</td>
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<td>SBIG-315</td>
<td>Medical Genetics</td>
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<td>SCLG-204</td>
<td>Communication Skills</td>
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Second Year

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<td>SCLM-432, 433</td>
<td>Biology Laboratory Techniques</td>
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<td>SMAM-309</td>
<td>Statistics</td>
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<td>Immunology</td>
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<td>SCLM-405</td>
<td>Diag. Bacteriology</td>
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<td>Immunology Lab</td>
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| General Studies Elective - Upper Division |                                      | 5    | 5      | 5      |

BS degree: the fourth year taken at an approved hospital for training medical technologists.
See Pg. 28 for Policy on Physical Education.
See Pg. 78 for General Studies requirements.
Nuclear Medicine Technology Program

Dr. Jerome Wagner, Program Director

The program leading to the BS degree in nuclear medicine technology spans four years, the first three of which are spent on campus. The fourth year consists of clinical training at one or more approved hospitals.

Clinical training in nuclear medicine technology

The NMT clinical training begins in early June and ends in mid-June of the following year. The first two weeks of training are an intensive introduction to the theory and practice of nuclear medicine technology taught by physicians and technologists from the program’s affiliated hospitals. Classes during this time are held on the RIT campus, and laboratory sessions take place at Rochester hospitals.

Most of the training is performed in nuclear medicine departments of the program’s hospital affiliates. Each student is assigned (subject to the hospital’s approval) a particular combination of three hospitals and trains approximately four months in each. The teaching is done primarily by physicians and technologists on the hospital staffs. Student progress and performance is monitored by the RIT nuclear medicine technology coordinator who makes periodic visits to the hospital departments. Readings, problem assignments and project work are an integral part of the student’s clinical training. Periodically during each four-month rotation, students return to the RIT campus for lectures and discussions.

The hospital training emphasizes the following areas: (a) radiation safety and protection; (b) patient positioning and nursing procedures; (c) radionuclide imaging and external monitoring; (d) nuclear medicine department administrative procedures.

The training also includes a substantial component of training in radioimmunoassay theory and practice. One week of classroom and laboratory work in RIA at RIT during the winter of the training year is followed by four weeks of radioimmunoassay clinical training at one of the affiliated hospitals.

The RIT nuclear medicine technology program has affiliations with the following Upstate New York hospitals: Syracuse area-Community General Hospital; Crouse-Irving Memorial Hospital; Rochester area- The Genesee Hospital; Highland Hospital; Rochester General Hospital; Strong Memorial Hospital; Binghamton area-Our Lady of Lourdes Hospital; Charles Wilson Memorial Hospital; Canandaigua area-Frederick Ferris Thompson Hospital. Buffalo area-Sisters of Charity Hospital.

The RIT program is also affiliated with Veterans Administration Hospital, St. Louis, Missouri. Students who wish to intern at this hospital make application in the month of January preceding the start of the clinical year. Students selected for training there receive a stipend and spend the entire year in St. Louis.

Requirements for the BS degree in nuclear medicine technology

The student must meet the minimum graduation requirements of the Institute as described on page 19 and in addition must complete the requirements contained in the particular program or its equivalent as determined and approved by the School of Health Related Professions. In conjunction with a faculty advisor, individual student programs will be established to meet particular needs, interests, and goals. A planned elective concentration in another field such as biology, chemistry, mathematics, computer science, business or photo science is possible.

Accreditation

The nuclear medicine technology program has been accredited by the Joint Review Committee on Education Programs in NMT of the American Medical Association.

Course descriptions

For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.
Eisenhower College

Thomas H. Plough, Executive Dean

Eisenhower offers a living and learning experience very different from that of other RIT colleges. Its expansive lakeside campus, its intimate communal size, and its rigorous curriculum in general education and the broad range of the arts and sciences present a unique educational option within the Institute.

The Eisenhower campus, about 50 miles from RIT’s Rochester campus, is adjacent to Cayuga Lake, longest of New York’s famous Finger Lakes, and about three miles from Seneca Falls, a friendly, prosperous town of about 8,000 people. The outdoor life is very much a part of the Eisenhower experience, and among the many natural attractions within biking distance of campus are the Montezuma National Wildlife Refuge and Cayuga Lake State Park.

A college of about 650 students, Eisenhower is a learning community in which each person is very much an individual. All the practical aspects of a college education—registration, access to facilities, conversations with professors—are a little easier when they can be done in a personal way. You will find that you, as an individual, are very important at Eisenhower, from the day you meet your admissions counselor until the day you are handed your diploma by the dean you have come to know. This is one of the special qualities of an Eisenhower education.

Facilities
Eisenhower’s 286 acre campus includes 18 buildings, athletic fields, tennis courts, a par-three golf course, ponds, a memorial park, and a marina on Cayuga Lake. With the exception of a 140-year-old barn which serves as a student gathering place, every major building on campus has been completed within the past 12 years. The college was designed with foresight to provide ready access for handicapped persons.

Eisenhower’s modern residence halls accommodate 70 to 170 students each, and are staffed by professional residence coordinators and student resident assistants. Nearly all students reside on campus. A variety of living arrangements are available, including rooms with a roommate or private quarters.

The Program
Your Eisenhower education will consist of three major facets: in-depth preparation in your chosen academic specialty, a general education program designed for global understanding, and career preparation through experience and advising.

The Major Field—The BA degree is awarded in the following fields:
- Applied Science, which includes work in engineering, mathematics, physics, science and computer science
- Community Services, which includes work in psychology, anthropology, health care and sociology
- Environmental Studies, which includes work in biology, economics, chemistry and environmental science
- Humanities, which includes work in writing, literature, history, philosophy, theatre arts, art and music
- International Relations, which includes international applications of political science, economics, history and quantitative methods
- Interdisciplinary Science, which includes work in biology, chemistry, mathematics, physics
- Managerial Economics, which includes work in economics, mathematics, computer science and management
- Public Policy, which includes work in political science, sociology, economics and history

The World Studies Program and Rhetoric Requirement—This required general education program is a shared learning experience for all Eisenhower students. It traces the history of mankind and human values, through time and across cultures, from the viewpoints of the liberal arts and science disciplines. Through participation in World Studies, you will develop an understanding of what it means to be a citizen of the world in the late 20th century. You will also develop a portfolio of intellectual skills—the abilities to communicate effectively, to reason and to make value judgments—that are necessary for a productive and satisfying life.

Career Preparation—Practical work experience through internships is a required part of the academic preparation to the world of work. Core programs in computer science, writing, management, modern intensive languages, and women’s studies are offered to add particular career skills to your major. Perhaps the most important component of career preparation at Eisenhower, however, is concerned and informed advising from your professors and the professional counseling staff. A formal program of career guidance, The Career Decisions Program, is offered as an option for the freshman year.

The Faculty
Called upon as consultants to government and industry, asked to present papers to professional conferences, educated in some of the country’s best universities, published frequently in scholarly journals, the members of the Eisenhower faculty have made significant contributions in the field of intellectual achievement. Yet their defining characteristic, and the primary focus of their energy, is the commitment to undergraduate teaching. Many of them have been with the college since its founding, and over the years they have worked together to develop a quality academic program here. Their accessibility and concerned guidance and their high academic standards in the classroom will constantly encourage and challenge you to set and achieve high goals for yourself.

Who should apply, and how?
Students wishing to consider study at the Eisenhower campus may request an application for admission through the Eisenhower College or RIT Admissions offices.

Eisenhower employs a “rolling admission” plan, so decisions regarding acceptance are made as soon as the application for admission, supporting SAT or ACT scores, and appropriate transcripts are received. Candidates are notified as soon as decisions are made.
Extra curricular and co-curricular activities
At Eisenhower you’ll find not only an ample number of clubs, teams and projects to accommodate a full range of interests, but also a variety of creative people with interesting ideas who approach extracurricular life with the same intensity as they do their studies.

Student participation in campus affairs is extensive. The Student Senate handles an annual budget of more than $100,000 and oversees all co-curricular activities. A student judiciary serves as a peer review body for student disciplinary cases.

Eisenhower’s location in upstate New York provides opportunities for outdoor activities in every season. Sailing on the Finger Lakes, hiking in state parks or the Montezuma Wildlife Refuge, and skiing at nearby slopes are popular pastimes for Eisenhower students. The College also sponsors numerous intercollegiate and intramural athletic activities for men and women.

The cultural life is quite active at Eisenhower, with a crowded schedule of visiting artists and performers. Many opportunities exist for your own artistic expression, through student music groups, the Eisenhower Theatre, the literary magazine, and community exhibits.

The campus is sensitive to a broad range of domestic and international issues as might be expected from the college which is the national memorial to President Dwight Eisenhower. Various student groups are formed to promote humanitarian, social and political causes. The Model United Nations Club is particularly active.

Other students create or join clubs centered around common intellectual interests, such as the Language Club, the Science and Industry Council, the Great Decisions Club, and The Feminist Coalition.

Students with common religious beliefs join in groups or take advantage of the open invitation of area churches and synagogues.

These campus groups - and many more not listed here - seek new members each year, so be assured that if you want to participate, you can.

For many students, Eisenhower provides the first contact with a small college located in a small community. It’s usually a pleasant surprise for those accustomed to much larger numbers to find themselves on a campus where people know each other and care about each other.

There’s an easy-going intimacy at Eisenhower that helps you get to know others. As a result, you begin to know more about yourself.

If you are considering the Eisenhower alternative, we encourage you to contact either the Eisenhower or RIT Admissions Office to ask any other questions you may have about the Eisenhower option.

Eisenhower College
Admissions Office
Seneca Falls, NY 13148
(315)568-7411
The National Technical Institute for the Deaf was created to provide deaf students with the technical training that will lead to meaningful employment in business, industry, government and education. Public Law 89-36 authorized the establishment of NTID, and Rochester Institute of Technology was chosen as the sponsoring institution in late 1966 by the Department of Health, Education and Welfare. In the fall of 1968, a pilot group of 71 deaf students began their studies at NTID and for the academic year 1982-83 enrollment will be approximately 1,000.

The partnership: NTID at RIT
As one college in ten at RIT, NTID is governed by the RIT Board of Trustees.

The fact that NTID is located on a college campus designed primarily for hearing students is important to the students’ academic, personal, social and communication development. The NTID academic programs, designed for deaf students, lead to certificates, diplomas and associate degrees from RIT. Most NTID students take some courses along with hearing students in the other colleges of RIT. Some NTID-sponsored students are full-time or part-time students in the associate’s, bachelor’s and master’s degree programs of other colleges of RIT. Special educational support teams made up of NTID staff members help them in their studies in those other colleges.

Facilities
There is a modern complex of buildings on RIT’s Rochester campus which was designed specifically to serve deaf students. The Lyndon Baines Johnson Building is the main academic building. It has a theatre, laboratories, offices, speech and hearing areas and classrooms.

Classrooms are designed to cut down on distractions. There are no windows, colors are soft, and seats are placed in a semicircle to allow the best possible vision from all parts of the room.

The theatre seats more than 500 people and has closed circuit television. A number of productions are offered each year using both voice and sign. There are also two well-equipped television studios, which are used to produce class and self-instruction videotapes and all captioning done at NTID.

The residence halls in this building complex contain dormitory rooms, recreation areas, student lounges, and study and conference areas. The residence halls are shared by deaf and hearing students. There are three residence halls: Mark Blingson Hall, Peter N. Peterson Hall and Alexander Graham Bell Hall.

The Hettie L. Shumway Dining Commons consists of a large dining room and complete food service facilities.

Other special features for deaf students include a visual emergency system in the academic and residence halls. A sophisticated telecommunication system links all parts of the NTID campus.

Educational philosophy
The educational goal of NTID at RIT is to provide opportunities for qualified deaf students to prepare for successful careers in business, computer science, engineering, applied science, allied health, photography, printing, art or social services. Students may pursue training for semi-professional careers through the programs managed by NTID. NTID provides special support services which enable deaf students to pursue professional careers in any one of the other colleges of RIT. In addition to preparation in technical areas, NTID offers experiences which assist deaf students in developing needed personal, social and communication competencies.

NTID also serves deaf persons throughout the world through educational outreach, publications, internships and related services. NTID is interested as well in helping deaf adults add to their vocational and technical skills through continuing education.

NTID at RIT conducts research to better understand the role of deafness in education and employment and to develop creative teaching techniques. There are training activities for its faculty and staff and for other professionals working with deaf persons across the country.

Cross registration
Any qualified deaf student may enroll in programs offered by other RIT colleges or take selected courses. These students are called cross-registered.

An NTID student cross-registered in courses in any RIT college has the support services of interpreters, tutors, note-takers, speech and hearing specialists, and counselors available to them.

There are several ways to become a cross-registered student.

1. Deaf students may take selected courses in another RIT college.
2. After completing a program of study offered by NTID, students may wish to continue their education in another RIT college.
3. Deaf students may enroll directly from high school or transfer directly from another college into an RIT program.

To enroll in another college at RIT, NTID students discuss the possibility with their counselor, academic advisor and a member of the educational support team assigned to the college of their choice. The final decision as to whether the student is admitted is left to the college in which the student seeks enrollment.

Summer Vestibule Program
The Summer Vestibule Program is a series of educational experiences designed to prepare deaf students for further post secondary training, to determine their academic strengths and weaknesses and to provide an environment for developing program and career choices.

During the summer program, new students have the opportunity to explore and evaluate, through program sampling, the various programs of study available through NTID and the other colleges at RIT. Concurrently, the faculty has the opportunity to evaluate the student, offer counsel and plan for the Fall Quarter.

The counseling staff helps students to more fully understand their abilities, interests and achievement levels through the interpretation and discussion of test data, background experiences, and work values. Aptitudes and interests are then related to available
academic programs and possible occupations. This gives students the opportunity to select a program and career which best suits their individualized needs. The students are also guided through a series of specially designed living arrangements and self-governance experiences which assist students in making satisfactory adjustments to college life and develop interpersonal relationship skills. The Summer Vestibule Program has proven invaluable in improving students' ability to take full advantage of opportunities at RIT.

Admission
To qualify for admission to RIT through NTID, students must meet certain standards agreed upon by RIT and the U.S. Department of Education.
1. A student should have attended a school or class for deaf students and/or have needed special help because of being deaf.
2. Students must have a hearing loss that seriously limits their chances of success in college without special support services. There is a general agreement that an average hearing loss of 60 decibels (ASA) or 70 decibels (ISO) or greater across the 500; 1,000; and 2,000 Hz range (unaided) in the better ear is a major handicap to education.
3. The NTID program at RIT is designed for students who have finished a secondary educational program. Students can be considered for admission before completing a secondary program if their secondary school authorities feel that they will gain more from the NTID program than by remaining in secondary school. Age and personal/social maturity are given special consideration in such a situation.
4. Students' educational background should show that they can probably succeed in a program of study at NTID or one of the other colleges of RIT. Students who are admitted should have an overall eighth grade achievement level or above. This means that the average score on an achievement test that includes reading, math and language should be at an eighth grade level.
5. Students must show that they are personally and socially mature enough to enter a program at NTID or one of the other colleges of RIT. The information is provided through the student's personal references and performance in the Summer Vestibule Program (SVP).
6. A student must be a citizen or permanent resident of the United States.

Charges and fees
The cost of attending the National Technical Institute for the Deaf includes tuition, room, board and academic fees. For more specific information on admission, costs and programs, please consult RIT's Official Bulletin for NTID, available from NTID.

Special support services
Special support services are provided to NTID-sponsored students at RIT. Interpreting services are available upon request for any class in which one or more deaf students are in attendance. In many classes for baccalaureate programs, trained hearing RIT students take notes on special notetaking pads and give copies of them to deaf students. Tutorial services are provided to deaf students as needed.

Note taking allows the deaf student to watch the interpreter or teacher while the notetaker records classroom information.
In addition, counseling and speech and hearing services are conducted on an individual basis for each student. Services to assist in career development are an important part of the total NTID program. All special support services are geared toward helping the deaf student gain the maximum benefit from his or her educational experiences at RIT - experiences that will lead to successful employment in the mainstream of the work environment.

Complementary Education
Experiences set up to enrich and increase students' educational opportunities in personal/social, cultural and aesthetic areas are provided. Complementary education supports both academic classes and co-curricular activities in providing personal development skills. These experiences enable students to become successful professionals in their chosen careers by making them more well-rounded individuals.
Such activities as athletics, theatre, student newspaper, student government and clubs are not only fun but give many deaf students the opportunity to become creative and experienced leaders.
In addition to intramural athletics, deaf students may also be members of RIT varsity teams in intercollegiate competition. Deaf athletes have helped RIT to winning seasons in hockey, track and swimming.

Employment Opportunities
Historically, more than 95 percent of NTID sponsored graduates who choose to enter the labor market have found jobs. Ninety-five percent of employed graduates are in jobs commensurate with the training they received at NTID. Many other RIT deaf graduates choose to continue their education through one of the other colleges at RIT or at other institutions.
The high employment rate is largely the result of the fact that deaf RIT graduates hold technical skills which seem to meet employers' needs. Also, NTID's highly individualized employment preparation program teaches students job search skills.
Employment advisors help students develop strategies to find jobs and to maintain employment. They also help employers understand NTID and other programs at RIT, deafness, and graduates' technical and communication skills.

Programs of Study
Technical education at NTID prepares students for a variety of successful careers. These programs are designed to meet the increasing demand for technicians, semiprofessionals and specialists for employment in industry, business, government and the professions.
NTID students can prepare for technical careers in seven major areas.
Business Careers Programs respond to the need in industry for people skilled in operating office equipment, keeping financial records, performing clerical duties and using computers.
Computer Careers Programs provide opportunities through the Data Processing major, to work in Computer operations and in preparing computer programs.
Students selecting the Engineering Technologies Careers may choose between two areas. Construction technologies careers involve helping to design and participate in the construction of buildings, roads and bridges. Industrial technologies careers involve working with manufacturing systems and special equipment used in industry.
Students who have an interest in science and who also like doing things to benefit people can combine both interests in the Applied Science/Allied Health Careers. Three program majors are offered: Medical Laboratory, Medical Records and Optical Finishing.

The NTID Art Department prepares students for technical careers in applied art, such as layout artist, mechanical artist, graphic artist. In addition, the Visual Communications Technologies Department offers students programs in Printing Careers, Photography Careers and Media Production Careers.

All curricula at NTID include appropriate general education and communication courses. These encompass the common knowledges, skills and attitudes needed by each individual to be effective as a person, a member of a family, an employee, a consumer and a citizen.

Interpreting for the Deaf

The purpose of the AAS degree in interpreting is to develop skills for the delivery of interpreting and other services needed by deaf persons in educational and other settings. While the emphasis is on developing interpreting skills, additional skills related to assisting deaf students in “mainstream” programs - notably, tutoring and notetaking, are also included. It is anticipated that graduates of the program will be able to get jobs in educational and community settings as interpreters, teacher’s aides and other positions requiring a combination of skills. The AAS may also serve as a starting point for more advanced educational degrees in other disciplines related to working with deaf persons.

All students must successfully complete the interpreting core courses (54 credit hours). Beyond this requirement, students will also select from one of three major concentrations of study: Tutoring/Notetaking, Educational Programs, or Interdisciplinary Study.

Transfer credits from another institution may be accepted, and in some instances students have the option of credit by exam for some of the professional courses if they already possess the skills required. Transfer and credit by exam options are determined on an individual basis.

Interpreting for the Deaf

Tutoring/Notetaking Concentration

NITP-391 Principles of Tutoring/Notetaking
NITP-392 Tutoring/Notetaking Practicum
GLLC-547 Practical Writing
GLLC-402 Conference Techniques

Educational Programs:

NITP-391 Principles of Tutoring/Notetaking
NITP-395 Mainstreaming: Educational Programs and Alternatives
GLLC-547 Practical Writing
GLLC-402 Conference Techniques

Interdisciplinary Study:

NITP-391 Principles of Tutoring/Notetaking
NITP-395 Mainstreaming

Two-Year Associate Degree in Interpreting

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<th>Course</th>
<th>Fall</th>
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<td>NITP-201, 202 Expressive Interp. I, II</td>
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<td>NITP-213 Voice Interpreting III</td>
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<td>NITP-303 Expressive Interpreting III</td>
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<td>NITP-331 Expressive Transliterating</td>
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<td>NITP-341 Intro, to Specialized Interpreting Settings</td>
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<td>NITP-372 The Professional Inter. II</td>
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<td>NITP-382 Interpreting Practicum II</td>
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<td>NITP-384 Interpreting Seminar II</td>
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<td>GLLC-520 Vocabulary Building</td>
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<td>Contemporary Science Course</td>
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*Courses may be offered/taken in quarters other than shown
#Technical requirements vary from 6-15 hours depending on the concentration; maximum is represented
The general objective of the Reserve Officers' Training Corps is to produce junior officers who, by education, training, attitude, maturity and qualities, are suitable for continued development as officers in the United States Army. The intermediate objectives of the program are to develop in each student:

1. The fundamentals of self-discipline, integrity, and responsibility;
2. An appreciation of the role of a participating citizen in matters dealing with national defense;
3. The ability to evaluate situations, to make decisions, to understand people, and to practice those attributes considered essential in a leader.

Four-year program
The Army ROTC program at Rochester Institute of Technology is voluntary and open to all male and female students enrolled on a full-time basis. Students are eligible to enroll in this program any time during their freshman or sophomore years. They may also disenroll at any time during these first two years without obligation. Upon completion of the sophomore year, the student may request enrollment in the Advanced ROTC Course for the junior and senior years.

Two-year program
This program is offered to all qualified students with two school years remaining who did not previously participate in ROTC. Students in this program attend a six-week Basic Summer Camp between their sophomore and junior years, in lieu of the first two years of ROTC normally presented in the classroom. Upon successful completion of this basic camp, the student is enrolled in the Advanced Course for the last two years. It should be noted that interested students should begin processing applications for this program early in the sophomore year.

Commissioning
In both the two-year and four-year programs, the student must successfully complete all degree requirements. Additionally, each student attends a six-week Advanced Summer Camp, usually between the junior and senior year, prior to being commissioned as a second lieutenant on graduation day.

ROTC sponsors many extracurricular and hands-on type activities through which the cadet may find an opportunity to develop leadership potential, broaden overall cultural, civic and social backgrounds, and enjoy voluntary weekend outdoor events. All courses receive full academic credit as free electives.

Scholarships
Full-tuition scholarships are available on a competitive basis to freshmen, sophomores and juniors. Under this program, the Army pays for all tuition fees, lab fees, textbooks, and other required expenses, except room and board. In addition, all students entering the Advanced Course receive $100 per month, with or without a scholarship, for ten months of each academic year. Throughout the entire program, the ROTC student is provided textbooks and related materials free of charge.

For further information
Additional information about ROTC may be obtained by visiting the unit's fifth floor offices in the administration building or by calling 475-2881, 2882.

Course descriptions
For a complete outline of courses offered at RIT, please request the Course Description catalog from the Admissions Office.

ROTC Faculty
Professor of Military Science
Lieutenant Colonel Victor F. Keefe
BA St. Mary's University
MA University of Oklahoma
Assistant Professors of Military Science
Major Robert E. Gillespie
BS University of Illinois—Urbana
Major Robert C. Sweeney
BS U.S. Military Academy
MS Georgia Institute of Technology
Major Christopher B. Witt
BS Citadel
MA Sul Ross, West Texas
Captain Ronald Dyches
BA Sam Houston State University
Captain Andrew G. Ellis
BS US Military Academy
Captain Johnie R. McAlister
BS U.S. Military Academy
Sergeant Major
Samuel G. Tratt
Training Specialists
Sergeant First Class James Hughes
Supply Specialist
Staff Sergeant Michael P. O'Connor
Administrative NCO
Staff Sergeant Major L. Redd
Military Personnel Clerk
Ms. Connie Nickel
Secretary
Mrs. Phyllis Sarnack
Trustees

Maurice I. Abrams, M.D.*, Honorary Director, American School for the Deaf, Inc.

James R. Alsdorf*, Former Vice President and General Counsel, Garlock, Inc.

Theodore J. Altier, Chairman and Treasurer, Altier and Sons Shoes, Inc.

Robert B. Anderson*, Partner, Robert B. Anderson & Co.

Mrs. Marcus N. Barbour*

Bruce B. Bates, Vice President, E.F. Hutton & Company, Inc.

George S. Beinetti*, Former Chairman of the Board, Rochester Telephone Corporation

John L. Blake, Consultant


Mrs. David L. Brooke

William A. Buckingham, Chairman of the Board, Manufacturers Hanover Trust Co./Central New York

Howard F. Carver*, Former Chairman of the Board, The Gleason Works

Colby H. Chandler, Vice Chairman, Board of Trustees, Rochester Institute of Technology; President, Eastman Kodak Company

Albert K. Chapman*

Brackett H. Clark*, Honorary Vice Chairman, Board of Trustees, Rochester Institute of Technology; Chairman of the Board and Treasurer, Rapidac Machine Corporation

Hugh E. Cumming, President and Director, Curtice-Burns, Inc.

E. Kent Damon, Vice Chairman, Board of Trustees, Rochester Institute of Technology; Vice President and Secretary, Xerox Corporation

Robert H. Downie, Senior Vice President - Development, Moore Corporation, Limited

Francis E. Drake, Jr., Retired Chairman of the Board, Rochester Gas & Electric Corporation

Mrs. James Duffus, President, Rochester Institute of Technology Women’s Council

David D. Egan, Attorney

Richard H. Eisenhart, Chairman, Board of Trustees, Rochester Institute of Technology; Chairman, R. H. Eisenhart, Inc.

Walter A. Fallon, Chairman of the Board and Chief Executive Officer, Eastman Kodak Company

Mrs. Julian M. Fitch, Former President, Rochester Institute of Technology Women’s Council

Maurice R. Forman*, Retired Chairman, B. Forman Company

James S. Gleason, President and Chief Executive Officer, The Gleason Works

Lawrence C. Gleason*, Former Chairman of the Board, The Gleason Works

Fred H. Gordon, Jr.*, Chairman, Executive Committee, Mixing Equipment Co., Inc. (a unit of General Signal Corporation)

Lucius R. Gordon, Chairman of the Board, Mixing Equipment Co., Inc. (a unit of General Signal Corporation)

Thomas H. Gosnell, President, Lawyers Cooperative Publishing Company

Ezra A. Hale*, Honorary Chairman, Board of Trustees, Rochester Institute of Technology; Honorary Chairman of the Board, Central Trust Co.

Alfred M. Hallenbeck, Attorney, Nixon, Hargrave, Devans and Doyle

Alexander D. Hargrave, Chairman of the Board and Chief Executive Officer, Lincoln First Banks, Inc.

John E. Heselden, President, Gannett Newspaper Division, Gannett Company

John D. Hostutler, President, Industrial Management Council

Thomas E. Hustead, Retired General Manager, Rochester Products Division, General Motors Corporation

Frank M. Hutchins, Vice Chairman, Board of Trustees, Rochester Institute of Technology; Chairman of the Board, Hutchins/Young & Rubicam Inc.

Stanley R. Jacobs*, Former Member, New York Stock Exchange

Herbert W. Jarvis, President and Chief Operating Officer, Sybron Corporation

Paul C. Jenks, M.D., Retired Physician

Byron Johnson, Senior Partner, Johnson, Reif and Mullan

John Wiley Jones*, Chairman of the Board, Jones Chemicals, Inc.

Thomas F. Judson, Sr., Chairman and Chief Executive Officer, John B. Pike & Son, Inc.

Arthur M Lowenthal*

Susan Eisenhower Mahon, Freelance Writer, Granddaughter of General and Mrs. Dwight David Eisenhower

William J. Maxion, Chairman of the Board, Case-Hoyt Corporation

Russell C. McCarthy*, Retired Manager, Industrial Management Council

J. Warren McClure, President, McClure Media Marketing Motivation Co.

C. Peter McColough*, Chairman of the Board and Chief Executive Officer, Xerox Corporation

Paul Miller*, Former Chairman of the Board, Gannett Company, Inc.

Alfred J. Murrer, Chairman of the Board, The Gleason Works

Raymond E. Olson*, Retired Vice Chairman of the Board, Sybron Corporation

Ernest I. Reveal, Retired Chairman of the Board, R.T. French Company

M. Richard Rose, President, Rochester Institute of Technology

Harris H. Rusitzky, Secretary, Rochester Institute of Technology; President, Serv-Rite Food Service & Consulting Corporation

John E. Schubert, Former Chairman of the Board, The Community Savings Bank

F. Ritter Shumway*, Honorary Member of the Board, Sybron Corporation

Mrs. F. Ritter Shumway*, Former President, Board of Health, County of Monroe

S. Richard Silverman, Chairman, National Advisory Group, NTID; Director Emeritus, Central Institute for the Deaf

Ellis D. Slater*, Retired Corporate Executive

Arthur L. Stern, Stern, Lane, Stern

Robert J. Strasenburgh II, Former Chairman and President, Strasenburgh Laboratories

Robert L. Tarnow, Chairman of the Board, Goulds Pumps, Inc.

Gaylord C. Whitaker, Consultant, Singer Education Systems

Ronald A. White, President, Graphic Systems Division, Rockwell International Corporation

Wallace E. Wilson*, Group Vice President (Retired), General Motors Corporation

Kenneth W. Woodward, M.D., Executive Director, Neighborhood Health Centers of Monroe County, Inc.

*Member of Honorary Board
Endowed Professorships

College of Business

J. Warren McClure Professorship in Marketing
Established: 1977
Donor: Mr. and Mrs. J. Warren McClure
Purpose: To perpetuate Mr. McClure's professional interest in the field of marketing.
 Held by: Professor Herbert J. Mossien

College of Continuing Education

Frederick H. Minett Professorship in Continuing Education
Established: 1972
Donor: Mr. Minett by bequest
Purpose: To provide a permanent memorial for Mr. Minett and to recognize his interest in students who obtain their education through the evening division.
 Held by: Presently open

Paul A. Miller Distinguished Professorship in Continuing Education
Established: 1978
Donor: RIT Board of Trustees
Purpose: To honor Dr. Miller on the occasion of his retirement as President of the Institute and to give lasting recognition to his standing as an acknowledged authority in the field of continuing education.
 Held by: Presently open

Russell C. McCarthy Chair
Established: 1979
Donors: Mr. Fred Gordon, Mr. Lucius Gordon, Mixing Equipment Company and General Railway Signal Company, units of General Signal Corporation, and other friends of Mr. McCarthy.
Purpose: To honor Mr. McCarthy as Manager of the Industrial Management Council for twenty years and his role as a champion of and an authority on industry and business. Mr. McCarthy has served RIT as a Trustee and Honorary Trustee since 1947.
 Held by: Professor James Forman

College of Engineering

James E. Gleason Professorship in Mechanical Engineering
Established: 1967
Donor: Estate of James E. Gleason
Purpose: To provide a permanent memorial for Mr. Gleason who served as a Trustee of RIT from 1930 until 1964, and to strengthen RIT in the field in which he received his education.
 Held by: Professor Ray C. Johnson

James E. McGhee Professorship in Photographic Management
Established: 1967
Donor: Master Photodealers &Finishers Association and friends of Mr. McGhee
Purpose: To provide a permanent memorial for Mr. McGhee, a former vice president of the Eastman Kodak Company and lifelong friend of the photo finishing industry.
 Held by: Presently open

Paul and Louise Miller Distinguished Professorship in Newspaper Production Management
Established: 1976
Donor: Frank E. Gannett Newspaper Foundation
Purpose: To honor the former chairman of the Board of the Gannett Company, and to perpetuate his interest in good management practices in the newspaper industry.
 Held by: Professor Robert G. Hacker

College of Fine And Applied Arts

Charlotte Fredericks Mowris Professorship in Contemporary Crafts
Established: 1976
Donor: Mrs. Charles F. Mowris
Purpose: To perpetuate her interest in the School for American Craftsmen through the work of faculty and students as talented craftsmen.
 Held by: Professor Hans Christensen

College of General Studies

Caroline Werner Gannett Professorship in the Humanities
Established: 1974
Donor: Mrs. Frank E. Gannett
Purpose: To perpetuate Mrs. Gannett's lifelong interest in education especially those fields of study that have a humanistic perspective.
 Held by: Professor Lillian B. Miller

All Institute

William A. Kern Professorship in Communications
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Robert J. Webster, BS, SUNY at Buffalo; MS, Ball State—Associate Professor
Charles J. Weigand, BS, MS, SUC at Oswego—Associate Professor
Hermann Zapf, Calligrapher and Type Designer—Adjunct Professor
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<td>Johan Bonk</td>
<td>Clinical Faculty, M.D.</td>
<td>University of Rochester-University of Rochester</td>
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<td>William A. Burns</td>
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<td>Arizona</td>
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<tr>
<td>Robert O’Marra</td>
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<tr>
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<tr>
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<tr>
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<td>Maryann Szewczyk</td>
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</tr>
<tr>
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**Medical Technology**

**Clinical Faculty**

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<th>Name</th>
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<tr>
<td>Alvin J. Marx</td>
<td>MD—Director, School of Medical Technology, St. Mary’s Hospital, Rochester, N.Y.</td>
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**Nuclear Medicine Technology**

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<tr>
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<td>University of Rochester</td>
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<td>BS, Tufts; MS, Massachusetts Institute of Technology—Program Director</td>
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<tr>
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Office of the Dean
Peter J. Pere, Ed.D., Memphis State University; MA, University of Tennessee at Knoxville; BBA, University of Miami-Dade
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Arden L. Travis, BS, Syracuse University; M.Ed., Alfred University; Ed.D., SUNY Buffalo—Director, Experiential Learning; College of Business; Associate Professor

Career Education Research
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Martha Young, BA, MA, Ed.D., University of Florida; (Instructor)

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Pat M. Ingers-Administrative Assistant to the Director
Gloria J. Jones-Secretary
Judy E. Grassi-Coordinator of Summer Orientation and Special Programs

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Louis A. Alexander, Jr., BS, University of Rochester—Coordinator of Special Projects; (Professor)
Lionel P. Allen, BS, Colgate University—Budget Manager for Athletics
Raymond C. Bell-Trainer; (Instructor)
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